

**FIGURE 1A**

SEQ ID NO: 2	MAEAEAGGAS-EQDDVSILRTEDVMCMSCATG-----ERVCLAAEGLGNRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 128	MAEAEAGGAS-EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 130	MAEAEAGGAS-EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 144	MAEAEAGGAS-EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 146	MAEAEAGGAS-EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 4	MADSEGGSS--EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 6	MADSEGGSS--EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 8	MADSEGGSS--EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 10	MAEAEAGGSS--EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 56	MAEAEAGGSS--EQDDVSFLRTEDMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 57	-----DMVCLSCATG-----ERVCLAAEFGNHRHCFLFENIAD-KNIPDLSQCVFVIEQALSVRALQELV
SEQ ID NO: 58	MADKEEQGGGEQDDVSFLRTGDIVCLSCVASHNRDGVLSERVCLCTEGFGNRMCTLENVSD-KDIPDIAFMCMLYIDNALSMLRALQEMM
SEQ ID NO: 59	-MASQDAE---DEVFSLRTGDIQLNLVCS--QS---LGHVLLGAEGFGNRCVLEASN-QNVPPDLSICVFLNLQALSVRALQEMV
SEQ ID NO: 60	MADAGEGE---DEIQFLRTDDEVVLQCTATIHKE---QQKLCIAAEGFGNRLCFLESTNSKNVPPDLSICTFVLEQSLSVRALQEML
SEQ ID NO: 61	MADGGEGE---DEIQFLRTDDEVVLQCTATIHKE---QQKLCIAAEGFGNRLCFLESTNSKNVPPDLSICTFVLEQSLSVRALQEML
SEQ ID NO: 62	MADGGEGE---DEIQFLRTDDEVVLQCTATIHKE---QQKLCIAAEGFGNRLCFLESTNSKNVPPDLSICTFVLEQSLSVRALQEML

SEQ ID NO: 2	TAAGSETGKE-----NLGKGTSGYRTHLLYGNAILLRHLNSDMYLACLSTS--SSQDKLAFDVGLQHSQGEACWTLHPASKQRSEG
SEQ ID NO: 128	TAAGSETG-----KGTSGGHRTHLLYGNAILLRHLNSDMYLACLSTS--SSQDKLAFDVGLQHSQGEACWTLHPASKQRSEG
SEQ ID NO: 130	TAAGSETG-----KGTSGGHRTHLLYGNAILLRHLNSDMYLACLSTS--SSQDKLAFDVGLQHSQGEACWTLHPASKQRSEG
SEQ ID NO: 144	TAAGSETGKE-----NLGKGTSGGHRTHLLYGNAILLRHLNSDMYLACLSTS--SSQDKLAFDVGLQHSQGEACWTLHPASKQRSEG
SEQ ID NO: 146	TAAGSETGKE-----NLGKGTSGGHRTHLLYGNAILLRHLNSDMYLACLSTS--SSQDKLAFDVGLQHSQGEACWTLHPASKQRSEG
SEQ ID NO: 4	TAASSQEG-----KGTSGGHRTHLLYGNAILLRHQNSDMYLACLSTS--SSNDKLSFDVGLQHSQGEACWTVHPASNQRSEG
SEQ ID NO: 6	TATSSQEG-----KGTSGGHRTHLLYGNAILLRHQNSDMYLACLSTS--SSNDKLSFDVGLQHSQGEACWTVHPASNQRSEG
SEQ ID NO: 8	TAAGSEGE-----KG-TGSGGHRTHLLYGNAILLRHQNSDMYLACLSTS--SSNDKLSFDVGLQHSQGEACWTVHPASNQRSEG
SEQ ID NO: 10	TAAGSETG-----KGTSGGHRTHLLYGNAILLRHNSDMYLACLSTS--SSNDKLSFDVGLQHSQGEACWTVHPASNQRSEG
SEQ ID NO: 56	TAAGSETG-----KGTSGGHRTHLLYGNAILLRHNSDMYLACLSTS--SSNDKLSFDVGLQHSQGEACWTVHPASNQRSEG
SEQ ID NO: 57	TAAGSETG-----KGTSGGHRTHLLYGNAILLRHNSDMYLACLSTS--SSNDKLSFDVGLQHSQGEACWTVHPASNQRSEG
SEQ ID NO: 58	SADSDHKS-----ASGAGGHKTHLLYGHAVQLKHVQSEMYLACLSSC--SSNDKLAFLDVGVQETNEGEACWTVHPASNQRSEG
SEQ ID NO: 59	ITDQIDQGGQ-----AGHRTLLYGHAMLLQHSLSMHACLPTS--SSKDKLAFDVGLQESTQGEACWTVHPASNQRSEG
SEQ ID NO: 60	ANTVEKSEGQVDVEKWKFMKTAQGGGHRTHLLYGHAILLRHSYSGMYLCCLSRSTSDKLAFLDVGLQEDTTGEACWTVHPASNQRSEG
SEQ ID NO: 61	ANTVEKSEGQVDVEKWKFMKTAQGGGHRTHLLYGHAILLRHSYSGMYLCCLSRSTSDKLAFLDVGLQEDTTGEACWTVHPASNQRSEG
SEQ ID NO: 62	ANTVEKSEGQVDVEKWKFMKTAQGGGHRTHLLYGHAILLRHSYSGMYLCCLSRSTSDKLAFLDVGLQEDTTGEACWTVHPASNQRSEG

**FIGURE 1B**

SEQ ID NO:2	EKRVGDDLLILSVVAIERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:128	EKRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:130	EKRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:144	EKRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:146	EKRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:4	EKRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:6	EKRVGDDLLILSVVATERYLHTAKE--NELSVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:8	EKRVGDDLLILSVVATERYLHTAKE--NELSVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:10	EKRVGDDLLILSVVATERYLHTTKE--NDLSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:56	EKRVGDDLLILSVVATERYLHTTKE--NEQSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:57	EKRVGDDLLILSVVATERYLHTTKE--NDLSIVNASFHVTHWSVQPYGTG-----ISRMKYVGYVFGGDVLRFFFHG-GDECLTI
SEQ ID NO:58	EKRVGDDVILSVVATERYLHMAYS---KGYMVIASFHQTLNIIQSVSSG-----SMRTRNMGFLFGNDVLRFLFHG-NDECLTI
SEQ ID NO:59	EKRVGDDLLILVNATERYLHLVSERDDQPMIVVASFQQTLLVTPVSSGIVIKAMAKKYGDTEKVLGFLNGLDTRLFRSRGHMDEYLTIV
SEQ ID NO:60	EKRVGDDLLILSVSSERYLHLSYG--NSSWHVDAAAFQQTLLSVAPISS-----GSEAAQGYLIGGDVLRLLHGHMDECLTV
SEQ ID NO:61	EKRVGDDLLILSVSSERYLHLSYG--NGSLHVDAAAFQQTLLSVAPISS-----GSEAAQGYLIGGDVLRLLHGHMDECLTV
SEQ ID NO:62	EKRVGDDLLILSVSSERYLHLSYG--NGSLHVDAAAFQQTLLSVAPISS-----GSEAAQGYLIGGDVLRLLHGHMDECLTV
SEQ ID NO:2	P-STWTKDGGQNIIVYKGGVMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEPTTASCAFLRQEKD
SEQ ID NO:128	P-STWTKDGGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:130	P-STWTKDGGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:144	P-STWTKDGGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:146	P-STWTKDGGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:4	P-SSWSNVSGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASSTFFLRQEKD
SEQ ID NO:6	P-STWSNVSGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASSTFFLRQEKD
SEQ ID NO:8	P-STWSEAPGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:10	P-STWGREAGQNIIVYEGGVMAQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:56	P-STWGREAGQNIIVYEGGVMAQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:57	P-STWSLDSGQNIIVYEGGVSMSQARSLWRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVDQNELYLVSREEATTASCAFLRQEKD
SEQ ID NO:58	P-ENWSEHPQHNMVIYEGGAAVTAQARSLWRLELIRMKWHGALVGEQVFRIRHITTSGRYLGVDN-SVQLYHKEKADFDTAFVCMQNKD
SEQ ID NO:59	PPVGCKDDNISEVSYDTGAVAQVARSLSRAELILKKWNGSVSVSWGPPCIRHITTSGRYLGVDN-SVQLYHKEKADFDTAFVCMQNKD
SEQ ID NO:60	P-SGEHGEQRRTVHYEGGAVSVHARSLSRLRLETLRVWWSGSHIRWGQPFRLRHVTTGKYLMSMEDKNLLMLMDKEKADVKSTAFRFSKE
SEQ ID NO:61	P-SGEHGEQRRTVHYEGGAVSVHARSLSRLRLETLRVWWSGSHIRWGQPFRLRHVTTGKYLMSMEDKNLLMLMDKEKADVKSTAFRFSKE
SEQ ID NO:62	P-SGEHGEQRRTVHYEGGAVSVHARSLSRLRLETLRVWWSGSHIRWGQPFRLRHVTTGKYLMSMEDKNLLMLMDKEKADVKSTAFRFSKE

**FIGURE 1C**

SEQ ID NO: 2	DQKQVLEDKDLEVI	GAPIIKYGDSTVIVQ	HSETGLWLSYKSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	MTARVIRK	CSS
SEQ ID NO: 128	DQKQVLEDKDLEVI	GAPIIKYGDSTVIVQ	HSETGLWLSYKSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 130	DQKQVLEDKDLEVI	GAPIIKYGDSTVIVQ	HSETGLWLSYKSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 144	DQKQVLEDKDLEVI	GAPIIKYGDSTVIVQ	HSETGLWLSYKSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 146	DQKQVLEDKDLEVI	GAPIIKYGDSTVIVQ	HSETGLWLSYKSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 4	DQKIILEDKDLEVI	GAPIIKYGDSTVIVQ	HSDTGLWLTYSYET	KKKGKVGKVEEKQAVL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 6	DQKIILEDKDLEVI	GAPIIKYGDSTVIVQ	HSDTGLWLTYSYET	KKKGKVGKVEEKQAVL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 8	DQKVLEDKDLEVI	GAPIIKYGDSTVIVQ	HSETGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 10	DEKKVLEDKDLEVI	GPPIIKYGDSTVIVQ	HSETGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 56	DEKKVLEDKDLEVI	GPPIIKYGDSTVIVQ	HSETGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 57	DQKVLEDKDLEVI	GPPIIKYGDSTVIVQ	HSETGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 58	PKKQMLDEKEEGM	GATIRYGETNAFI	QHVKTQLWLSYQ	TEVTKKGLGKVEEKQAVL	KDGHMDDCY	TF	FMAL	EEES	KSARVIRK	CSS	
SEQ ID NO: 59	D-LANYDSKQDHG	MGSAIKYGDSTVIVQ	HSETGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 60	K-LDVGVRKEVDG	MGTSIKEYGDSICYI	QHVDTGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 61	K-LDVGVRKEVDG	MGTSIKEYGDSICYI	QHVDTGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 62	K-LDVGVRKEVDG	MGTSIKEYGDSICYI	QHVDTGLWLTYSYET	KKKGKVGKVEEKQAIL	HEEGKMDGDL	DL	SR	SQ	EEEE	SR	TARVIRK
SEQ ID NO: 2	LFTKFINGLETLQ	-ENRRHSMFFASV	NLGEMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 128	LFTKFINGLETLQ	-ENRRHSMFFASV	NLGEMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 130	LFTKFINGLETLQ	-ENRRHSMFFASV	NLGEMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 144	LFTKFINGLETLQ	-ENRRHSMFFASV	NLGEMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 146	LFTKFINGLETLQ	-ENRRHSMFFASV	NLGEMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 4	LFTQFISGLENLQ	-SNRRSSLFCSFV	NLNMVMCLEDLT	NYFAQPE	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 6	LFTQFISGLENLQ	-SNRRSSLFCSFV	NLNMVMCLEDLT	NYFAQPE	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 8	LFTQFIRGLETLQ	-VNRHSLFCATV	NLNMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 10	LFTQFITALETLQ	-SNRRHSIFFQK	VNLNMVMCLEDLT	NYFSQ	PEDDMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 56	LFTQFITALETLQ	-SNRRHSIFFQK	VNLNMVMCLEDLT	NYFSQ	PEDDMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 57	LFTKFINGLETLQ	-ENRRHSIFFQK	VNLNMVMCLEDLT	NYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 58	VLNKFLKGIDALQ	LE-GNQSTWTRV	NLNEVLKLMEDL	IEYFAQPD	DEMEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 59	LFNQFFDALSLR	GEKEDDLAWNS	FNLSVVDILEDL	IEYFGE	PEDEDEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 60	LFNRFIRGLDAL	S--KVKLPTIDLP	IESVLSLQDL	IGYFPP	PEDEDEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 61	LFNRFIRGLDAL	S--KKAASSVDLP	IESVLSLQDL	IGYFPP	PEDEDEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	
SEQ ID NO: 62	LFNRFIRGLDAL	S--KKAASSVDLP	IESVLSLQDL	IGYFPP	PEDEDEHEEKQKFRALNR	QDL	FQ	EEGILNL	ILEAIDKIN	VVTSQ	

**FIGURE 1D**

SEQ ID NO: 2	GFLAGLAGDESGQSWEMISGYLYQLLAAIIKGNHTNCAQFANSNRFNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 128	GFLAGLAGDESGQSWEMISGYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 130	GFLAGLAGDESGQSWEMISGYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 144	GFLAGLAGDESGQSWEMISGYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 146	GFLAGLAGDESGQSWEMISGYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 4	GFVMS-LAGDESGQSWDVISGYLYQLLAAIIKGNHTNCAQFANTNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 6	GFVMS-LAGDESGQSWDVISGYLYQLLAAIIKGNHTNCAQFANTNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 8	GFLVS-LAGDESGQSWDIISGYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 10	GFLASFLAGDETQSWDLIISTYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 56	GFLASFLAGDETQSWDLIISTYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 57	GFLASFLAGDETQSWDLIISTYLYQLLAAIIKGNHTNCAQFANSNRLNWLFSRLGSQASGEGTGMLDVLHCVLIDLSPEALNMMRDEHIKV
SEQ ID NO: 58	PDFAG-LIGEETHVKEQISTVLYLYQLLAAIIKGNHTNCAQFASQRLDWLFRSLNPSQASG--ILDVLYCVLTESPEALNMMRDEHIKS
SEQ ID NO: 59	RDFAA-IVGEDAGDLWDIVTYLYLYQLLAAIIKGNHTNCAQFASQRLDWLFRSLNPSQASG--ILDVLYCVLTESPEALNMMRDEHIKS
SEQ ID NO: 60	AHFAD-VAGREAGESWKSILNSLYELLAALIRGNRKNCAQFSG--SLDWLISRLELEASSG--ILEVLHCVLVESPEALNIIKEGHIKS
SEQ ID NO: 61	AHFAD-VAGREAGESWKSILNSLYELLAALIRGNRKNCAQFSG--SLDWLISRLELEASSG--ILEVLHCVLVESPEALNIIKEGHIKS
SEQ ID NO: 62	AHFAD-VAGREAGESWKSILNSLYELLAALIRGNRKNCAQFSG--SLDWLISRLELEASSG--ILEVLHCVLVESPEALNIIKEGHIKS

SEQ ID NO: 2	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 128	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 130	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 144	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 146	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 4	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 6	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 8	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 10	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 56	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 57	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 58	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 59	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 60	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 61	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT
SEQ ID NO: 62	IIISLLEKHGRDPKVLVDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLOLTALVDHVSSVRPNIFVGRVEGSVAVRKWYFEVTMDHIE-KT

**FIGURE 1E**

SEQ ID NO: 2	THMMPHLRIGWANTTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 128	THMMPHLRIGWANTTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 130	THMIPHLRIGWANTTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 144	THMMPHLRIGWANTTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 146	THMMPHLRIGWANTTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 4	THLNPHIRIGWANTAGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 6	THLNPHIRIGWANTAGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 8	THMTPHLRIGWANTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 10	THMMPHLRIGWANTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 56	THMMPHLRIGWANTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 57	THMTPHLRIGWANTGYVYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 58	TKQTPYLRIGWANSVGFPPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 59	TSRPVHFRVGWATTQGFRTYLRGGEGWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 60	TAEATHLRVGWASTEGYSYPGGGEEWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 61	TAEATHLRVGWASTEGYSYPGGGEEWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 62	TAEATHLRVGWASTEGYSYPGGGEEWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPYIRKGDVIGCALDLTVPIINFMFNGVR
SEQ ID NO: 2	VTGSFTNFNLEGMFFPVISSCKSLSCRFLLGGEHGRRLRYAAPEGYSPLVESLPPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 128	VTGSFTNFNLEGMFFPVISSCKSLSCRFLLGGEHGRRLRYAAPEGYSPLVESLPPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 130	VTGSFTNFNLEGMFFPVISSCKSLSCRFLLGGEHGRRLRYAAPEGYSPLVESLPPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 144	VTGSFTNFNLEGMFFPVISSCKSLSCRFLLGGEHGRRLRYAAPEGYSPLVESLPPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 146	VTGSFTNFNLEGMFFPVISSCKSLSCRFLLGGEHGRRLRYAAPEGYSPLVESLPPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 4	VQGAFRDNLDGMFFPVISSCKSVSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 6	VQGAFRDNLDGMFFPVISSCKSVSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 8	IRGCFRDNLDGMFFPVISSCKSVSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 10	VRGSFRDNLDGMFFPVMSCSSKSLSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 56	VRGSFRDNLDGMFFPVMSCSSKSLSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 57	VQGCFTDNLDGMFFPVMSCSSKSLSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 58	MSGFKKFNIDGYFFPVMSSAKVSCRFLLGGDHGRLLKFTPPDEFSPLEFELLPQIILSLEP--CFYFGNLSKRALAGP-PLVQDDTAFV
SEQ ID NO: 59	IKASFEGINLEGMFFPVLFSARVCARFLLGKHGRFKYSPKGFSAVCEAVLPPGVAACYEAVLPKPKLVEHSREYKQERTYTRDILLGP-TVSLTQAAFT
SEQ ID NO: 60	VQGMFENFIDGLFFPVSFAGIKVRFLLGGRHGEFKFLPPGVAACYEAVLPKPKLVEHSREYKQERTYTRDILLGP-TVSLTQAAFT
SEQ ID NO: 61	VQGMFENFIDGLFFPVSFAGIKVRFLLGGRHGEFKFLPPGVAACYEAVLPKPKLVEHSREYKQERTYTRDILLGP-TVSLTQAAFT
SEQ ID NO: 62	VQGMFENFIDGLFFPVSFAGIKVRFLLGGRHGEFKFLPPGVAACYEAVLPKPKLVEHSREYKQERTYTRDILLGP-TVSLTQAAFT

**FIGURE 1F**

SEQ ID NO: 2	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTILALGYVISLD
SEQ ID NO: 128	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTILALGYVISLD
SEQ ID NO: 130	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTILALGYVISLD
SEQ ID NO: 144	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTILALGYVISLD
SEQ ID NO: 146	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTILALGYVISLD
SEQ ID NO: 4	PNPVDTSMTLPSYIENIKDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 6	PNPVDTSMTLPSYIENIKDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 8	PTPVDTSMTLPSYIENIKDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 10	PKPVDTTGVTLPSSVDQIKDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 56	PKPVDTTGVTLPSSVDQIKDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 57	PKPVDTSIVTLPSSVETIKDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 58	PTPIDVSATQLNHHATEMHQKVAENLHELWAMRKIELGWSYGETRSETSRKHPCLTFEYLPETEKKNILALTTMKTIEALGYHLITE
SEQ ID NO: 59	PAPVDTANVNLPGYIEMLRDKLAENIHEMWAMNKIEAGWYGDQREDLHKIHPCLVPFFERLPPAEKRYDIQLAVQTLKTIVIALGYHISID
SEQ ID NO: 60	PVPVDTSQIVLPPHLERIRERLAEIHELWAMNKIELGWQYGPVDDNKRQHPCLVEFCKLPEQERNYNLQMSLETTLKTLLALGCHVGIA
SEQ ID NO: 61	PIPVDTSQIVLPPHLERIRERLAEIHELWAMNKIELGWQYGPVDDNKRQHPCLVEFCKLPEQERNYNLQMSLETTLKTLLALGCHVGIS
SEQ ID NO: 62	PIPVDTSQIVLPPHLERIRERLAEIHELWAMNKIELGWQYGPVDDNKRQHPCLVEFCKLPEQERNYNLQMSLETTLKTLLALGCHVGIS
SEQ ID NO: 2	KPPAR--IRNVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 128	KPPAR--IRNVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 130	KPPAR--IRNVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 144	KPPAR--IRNVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 146	KPPAR--IRNVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 4	NPPSR--IKTVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--ELQMLRSPHLVPYSKVDD
SEQ ID NO: 6	NPPSR--IKTVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--ELQMLRSPHLVPYSKVDD
SEQ ID NO: 8	KPPSR--IKTVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSDMLRSPHLVPYCKVDE
SEQ ID NO: 10	KPPAR--IRPVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 56	KPPAR--IRPVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 57	KPPAR--IRPVRLPNEPFMQSNGYKPAPLDL SAVTLTPKMDLVDQLAENTHNLWARERIQQGWTYGLNE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 58	DPPCR--LRVRLGPN-FQQQNGYKPGPLDTHEIQLPAELQPLTEALARNTHNIWAKEIKRGWTFGLSEHVDATQKRSPLVPYEQVDE
SEQ ID NO: 59	EETSKSTLKRRLPMN-YLMSNGYKPAPLYNLSTIHLNVKMEKLVELLAEANHNWAKDRIAGQWTYGLSE--ETS YKRNPLVPYTNQLND
SEQ ID NO: 60	DEHAEKVKMKLPKN-YQLTSGYKPAWMDLSFKLTPSQEAMVDKLAENAHNVWADRIAGQWTYGLSE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 61	DEHAEKVKMKLPKN-YQLTSGYKPAWMDLSFKLTPSQEAMVDKLAENAHNVWADRIAGQWTYGLSE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 62	DEHAEKVKMKLPKN-YQLTSGYKPAWMDLSFKLTPSQEAMVDKLAENAHNVWADRIAGQWTYGLSE--DSENHRSPHLVPYAKVDE

**FIGURE 1G**

SEQ ID NO: 2	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 128	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 130	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 144	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 146	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 4	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 6	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 8	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 10	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 56	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 57	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 58	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 59	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 60	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 61	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 62	AIKKANRDTASETVRTLTVGYGYMLDPPPTGEQHEA-----LLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP

SEQ ID NO: 2	GMMLGQDENSWAFDGYNEEKVYSGNTESFGKQWAGDVVGVFLDLIDKTIISFSLNGELLMDALGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 128	GMMLGQDENSWAFDGYNEEKVYSGNTESFGKQWAGDVVGVFLDLIDKTIISFSLNGELLMDALGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 130	GMMLGQDENSWAFDGYNEEKVYSGNTESFGKQWAGDVVGVFLDLIDKTIISFSLNGELLMDALGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 144	GMMLGQDENSWAFDGYNEEKVYSGNTESFGKQWAGDVVGVFLDLIDKTIISFSLNGELLMDALGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 146	GMMLGQDENSWAFDGYNEEKVYSGNTESFGKQWAGDVVGVFLDLIDKTIISFSLNGELLMDALGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 4	GYQIGSDENSWAFDGYNEEKIYMGTAESFGRQWQVGVFLDLMDHTISFSLNGELLMDTLGGETTFSEVQGEH--FVPAFTLGLGQK
SEQ ID NO: 6	GYQIGSDENSWAFDGYNEEKIYMGTAESFGRQWQVGVFLDLMDHTISFSLNGELLMDTLGGETTFSEVQGEH--FVPAFTLGLGQK
SEQ ID NO: 8	GSQLGNDYSWAFDGFNEEKVYLGTCESFGRQWQVGVFLDLMDHTISFSLNGELLMDTLGGETTFSEVQGEH--FVPAFTLGLGQK
SEQ ID NO: 10	GAMLGSEDTSWAFDGHNVTKMHAGIEHFGRVYEAGDVIGCFIDVKEQTIISFSLNGELLMDALGETTFADVTAEGVGFVPACTLGVGQK
SEQ ID NO: 56	GAMLGSEDTSWAFDGHNEEKVYGGVSESGKQCGPGDIVGVFLDLADHTISFSLNGELLMDALGETTFADVTAEGVGFVPACTLGVGQK
SEQ ID NO: 57	GTMLGSDDASWAFDGYN-----IGQK
SEQ ID NO: 58	EIQLGADDRSYAFDGYLGRKWHQG-AETYGKWKIGDVVGVFLDLMDRTISFSLNGELLMDPSGSEMAFDNVVCGDG-LVPAMTLGSGQR
SEQ ID NO: 59	RSEVGTDCGSFADFGLARKWHQGS-ETFGKTWGMEDVIGCMNLVDNTISFTMNGEYILCDVSGSEMAFHDIEICEG-FVPVCMLAAGEK
SEQ ID NO: 60	DLELGSDDRAFADFGLKQQRWHQGN-EHYGRSQWAGDVVGVCMVDMNEHTMMFTLNGEILLDDSGSELAFAKDFDVGDG-FIPVCSLGVQV
SEQ ID NO: 61	DQELGSDDERAFADFGLKQQRWHQGN-EHYGRSQWAGDVVGVCMVDMNEHTMMFTLNGEILLDDSGSELAFAKDFDVGDG-FIPVCSLGVQV
SEQ ID NO: 62	DQELGSDDERAFADFGLKQQRWHQGN-EHYGRSQWAGDVVGVCMVDMNEHTMMFTLNGEILLDDSGSELAFAKDFDVGDG-FIPVCSLGVQV



**FIGURE 1H**

SEQ ID NO: 2	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKDQPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 128	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKDQPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 130	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKDQPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 144	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKDQPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 146	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKDQPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 4	AKLTFGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVAYWYTKDQPIFENTDDFS--SVIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 6	AKLTFGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVYWYTKDQPIFENTDDFS--SVIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 8	AKLTFGQDVNSLKYFTTCGLQEGYEPFCVNMKRAVYWYTKDQPIFENTEDYAD-SRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 10	ARLIYGQDVNSLKYFTTCGLQEGYEPFCVNMRRPVTHWYTKDQPIFENTTEMPD-CRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 56	ARLIYGQDVNSLKYFTTCGLQEGYEPFCVNMRRPVTHWYTKDQPIFENTTEMPD-CRIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 57	ARVVGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVTHWYTKDQPIFENTDEIPE-CKIDVTRIPAGSDTPPCLKISHNTFE-----TMEKA
SEQ ID NO: 58	GRLNFGQDVNSLKYFTTCGLQEGYEPFCVNMRYRTMPMFAKHPRFEDISTLKSGLILEVSRIPATGNSPPCLKILQKVTISEGGPSEKA
SEQ ID NO: 59	AHLHFGQDVNSLKYFTTCGLQEGYEPFCVNMKSMPLWYKSQPMFQSIEDH--DRLGITRIPAGIEGPPCLKVSHKKG-----TVENL
SEQ ID NO: 60	GRMFGKDVSTLKYFTTCGLQEGYEPFAVNTNRDITMWSLKRLLPQLQVPSNH--EHIEVTRIDGTIDSSPCLKVTKSFGS-----QNNNT
SEQ ID NO: 61	GRMFGKDVSTLKYFTTCGLQEGYEPFAVNTNRDITMWSLKRLLPQLQVPSNH--EHIEVTRIDGTIDSSPCLKVTKSFGS-----QNSNT
SEQ ID NO: 62	GRMFGKDVSTLKYFTTCGLQEGYEPFAVNTNRDITMWSLKRLLPQLQVPSNH--EHIEVTRIDGTIDSSPCLKVTKSFGS-----QNSNT
SEQ ID NO: 2	NWEFLRLSLPVI CHNEFIDEAEKARRWEIKDRQIILMK-----EAVEAQM-----AHIDQIMRSGFTMNDIKGLHYE-DNQEE
SEQ ID NO: 128	NWEFLRLSLPVI CHNEFIDEAEKARRWEIKDRQIILMK-----EAVEAQM-----AHIDQIMRSGFTMNDIKGLHYE-DNQEE
SEQ ID NO: 130	NWEFLRLSLPVI CHNEFIDEAEKARRWEIKDRQIILMK-----EAVEAQM-----AHIDQIMRSGFTMNDIKGLHYE-DNQEE
SEQ ID NO: 144	NWEFLRLSLPVI CHNEFIDEAEKARRWEIKDRQIILMK-----EAVEAQM-----AHIDQIMRSGFTMNDIKGLHYE-DNQEE
SEQ ID NO: 146	NWEFLRLSLPVI CHNEFIDEAEKARRWEIKDRQIILMK-----EAVEAQM-----AHIDQIMRSGFTMNDIKGLHYE-DNQEE
SEQ ID NO: 4	NWEFLRLSLPVI CLPSFIDGQEQKRWQEIIRIQRHLLS-----QSEHATP-----AHIERIMKSGFMSDIKGLHRGYSDDPV
SEQ ID NO: 6	NWEFLRLSLPVI CLPSFIDGQEQKRWQEIIRIQRHLLS-----QSEHATP-----AHIEQIMKSGFMSDIKGLHRGYSDDPV
SEQ ID NO: 8	NWEFLRLSLPVI CHSSFIESEKLRWQEIIRIQRHLLV-----EADQTP-----AHMEQIMKSGLSMSDIKGLHRGYSDDAV
SEQ ID NO: 10	NWEFLRLSLPVT CMGEFISEQEKARRWEIKNRQYRLMR-----EAEIAAQMVQVQTAAHMDHMLKGGFNMMNDIKGLTRNFDEHAD
SEQ ID NO: 56	NWEFLRLSLPVT CMGEFISEQEKARRWEIKNRQYRLMR-----EAEIAAQMVQVQTAAHMDHMLKGGFNMMNDIKGLTRNFDEHAD
SEQ ID NO: 57	NWEFLRLSLPVT CANTFITEQEKMRWEEIIRIQRHLLT-----EVDHSA-----AHFDHIMRSGFTMNDIKGLHRYSEDA
SEQ ID NO: 58	KMEYIKLSLPVKCNDTFVKNKDKETIRRLQOEYKPRSQS-----VVSQIRAPGIPKEFFDNDKEKGLRSLGSKOSHESDDRRS
SEQ ID NO: 59	PTEYLRLSMPVVKDFPTSGEMVLSIPVPLSPGNKRQWIIQQGATSLDLSETSN-----DGNRRTRSGLDKMEHKAIDTDAIDGDA
SEQ ID NO: 60	DIMFYRLSMPIECAEVFSKSVAGGLPGAGFYGPKS-----DLEDVD-----SDFEVLKMTAHGHLVPDRIDKDKETPKP
SEQ ID NO: 61	DIMFYRLSMPIECAEVFSKSVAGGLPGAGFYGPKN-----DLEDVDAD-----SDFEVLKMTAHGHLVPDRVDKDKETTKA
SEQ ID NO: 62	DIMFYRLSMPIECAEVFSKTVAGGLPGAGLFGPKN-----DLEDVDAD-----SDFEVLKMTAHGHLVPDRVDKDKETATP



**FIGURE 1I**

SEQ ID NO:2	LPSSKMK-----RLP--SRPPRK---GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEAMKYDLGAQGLTP-D-DKKDKRGRSPFK
SEQ ID NO:128	LPSSKMK-----RLP--SRPPRK---GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEAMKYDLGAQGLTP-D-DKKDKRGRSPFK
SEQ ID NO:130	LPSSKMK-----RLP--SRPPRK---GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEAMKYDLGAQGLTP-D-DKKDKRGRSPFK
SEQ ID NO:144	LPSSKMK-----RLP--SRPPRK---GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEAMKYDLGAQGLTP-D-DKKDKRGRSPFK
SEQ ID NO:146	LPSSKMK-----RLP--SRPPRK---GSMTR-----GQVNGMHRSTSEAEAMKYDLGAQGLTP-D-DKKDKRGRSPFK
SEQ ID NO:4	ENDEIMPNTAPLPARGKNQPPPPRPK---GSLSRHDDLTIEN-----DGKLNRSSELNFIYHQNGDGDQDINKDDKKRGRSPFR
SEQ ID NO:6	ENDEIMPNTAPLPARGKNQPPPPRPK---GSLSRHDDLTIEN-----DGKLNRSSELNFIYHQNGDGDQDINKDDKKRGRSPFR
SEQ ID NO:8	EADMMMQSTPTTKSKMRQ--SRPPRK---GSLSRHDDLTIEN-----SLEQSKMNRSTSELDLNRYNADLQ--DKDDKKRGRSPFR
SEQ ID NO:10	AEADHMM-----RGP--NRPPRK---GSLTRN-----ITFTDMSAALDEMQRSTSVLDMNGLGE-EMDDKKRGRSPFK
SEQ ID NO:56	AEADHMM-----RGP--NRPPRK---GSLTRN-----ITFTDMSAALDEMQRSTSVLDMNGLGE-EMDDKKRGRSPFK
SEQ ID NO:57	EADMMR-----NGP--RRPSRHQGRGLSP-----PGIEINGEATSDGELNAYSDELEGG-----DDRKKRGRSPFR
SEQ ID NO:58	RTNSKQPSVDG-----DEP--PAVRRS-----LLELP-----HD-ERQIAEDSMRDLNDRHSEKPKKGGLLSRLRDSNTRKNFR
SEQ ID NO:59	RVNGYNGDTK-----ELT--KKEKKK-----LASLP-----LGRKIPMSRAASSETSTVQSPDSSF--ERSGSPSPAKSKSKFT
SEQ ID NO:60	EFNNHKDYAQ-----EKP--SRLKQR-----FLLR-----RTKPDYSTGHSARLT
SEQ ID NO:61	EFNNHKDYAQ-----EKP--SRLKQR-----FLLR-----RTKPDYSTGHSARLT
SEQ ID NO:62	EFNNHKDYAQ-----EKP--SRLKQR-----FLLR-----RTKPDYSTGHSARLT
SEQ ID NO:2	FFRSK---RGESSDRAKSRKSKTPDPFSDTEVSPERGA---RRPNPQIKVSOANQR-YNGMNPSPRTNLYGSQVGLNSNAQMATPTQD
SEQ ID NO:128	FFRSK---RGESSDRAKSRKSKTPDPFSDTEVSPERGA---RRPNPQIKVSOANQR-YNGMNPSPRTNLYGSQVGLN---MATPTQD
SEQ ID NO:130	FFRSK---RGESSDRAKSRKSKTPDPFSDTEVSPERGA---RRPNPQIKVSOANQR-YNGMNPSPRTNLYGSQVGLN---MATPTQD
SEQ ID NO:144	FFRSK---RGESSDRAKSRKSKTPDPFSDTEVSPERGA---RRPNPQIKVSOANQR-YNGMNPSPRTNLYGSQVGLNSNAQMATPTQD
SEQ ID NO:146	FFRSK---RGESSDRAKSRKSKTPDPFSDTEVSPERGA---RRPNPQIKVSOQ--N-AQ-----MATPTQD
SEQ ID NO:4	FFRSK---KEGSDNPCKRAKTPDPARNVDRPNAAHPNTLNERVTQIRVSQMDLK-LVPPAIPDR-----PGG
SEQ ID NO:6	FFRSK---KEGSDNPCKRAKTPDPARNVDRPNAAHPNTLNERVTQIRVSQMDLK-LVPPAIPDR-----PGG
SEQ ID NO:8	FFRSK---REASNERSKKAKSPENSMMEADRGQMGRS-QHHMMRTPTVKVTAPDMK-VIPPTIPER-----SNM
SEQ ID NO:10	FFSKKS---RDQSRKMGARTLDTSLERNNTVA---HGR---NVVNQOMTTTAPTLR-LNNAEIPPS-----PVPQG
SEQ ID NO:56	FFSKKS---RDQSRKMGARTLDTSLERNNTVA---HGR---NVVNQOMTTTAPTLR-LNNAEIPPS-----PVPQG
SEQ ID NO:57	LFQKK---RDQSKDKLDRRTPEPEPRKS-----NLKVTQRGQATR-MSNSDLR-----AQA
SEQ ID NO:58	DSDRKEEAAQLRQMKANSRSDAGSLDSTLPTGQK---DVLASSEMPLSGPGRQLTIKRSSIKKNK-----GKKAEIA
SEQ ID NO:59	KSSSDSGAKHPEDTLAKPTGYEVDGQSPGAARRGK--HDLRTPEASPPGTLTREYIPLKSDNEGSV-----GSDNHGR
SEQ ID NO:60	-----EDVLG-----
SEQ ID NO:61	-----EDVLAD-----
SEQ ID NO:62	-----EDVLAD-----

**FIGURE 1J**

SEQ ID NO: 2	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHMYIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 128	RKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 130	SEQ ID NO: 130
SEQ ID NO: 144	SEQ ID NO: 144
SEQ ID NO: 146	SEQ ID NO: 146
SEQ ID NO: 4	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 6	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 8	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 10	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 56	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 57	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 58	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 59	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 60	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 61	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 62	PKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDPTHYVIGWVTTQYHLHSDKDFNQSK-VTKSSVLIITDDYDR
SEQ ID NO: 2	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 128	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 130	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 144	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 146	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 4	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 6	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 8	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 10	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 56	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 57	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 58	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 59	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 60	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 61	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-
SEQ ID NO: 62	VVENVNRQCYMVRADELYNEVMAEATAKASQGMFIGCSVDSTSGSVSFTCEGKDTSFKFKMEPETKLPFAISVEATSKELQIELGR-

**FIGURE 1K**

SEQ ID NO:2	-----SATSLPLSAAVLPTSDKHVLPQFPRLKVQCLKPHQWARVPNQSLQVHALKLSGIRGWSMLCEDAVSMLAL
SEQ ID NO:128	-----SATSLPLSAAVLPTSDKHVLPQFPRLKVQCLKPHQWARVPNQSLQVHALKLSDIRGWSMLCEDAVSMLAL
SEQ ID NO:130	-----SATSLPLSAAVLPTSDKHVLPQFPRLKVQCLKPHQWARVPNQSLQVHALKLSDIRGWSMLCEDAVSMLAL
SEQ ID NO:144	-----SATSLPLSAAVLPTSDKHVLPQFPRLKVQCLKPHQWARVPNQSLQVHALKLSDIRGWSMLCEDAVSMLAL
SEQ ID NO:146	-----SATSLPLSAAVLPTSDKHVLPQFPRLKVQCLKPHQWARVPNQSLQVHALKLSDIRGWSMLCEDAVSMLAL
SEQ ID NO:4	-----TSTTLPLSAAVLQNSERHVLPPQFPRLKVQCLRPHQWARVPNDSLHIHTLKLSDIRGWSILCEDPVSMIAL
SEQ ID NO:6	-----TSTTLPLSAAVLQNSERHVLPPQFPRLKVQCLRPHQWARVPNDSLHIHTLKLSDIRGWSILCEDPVSMIAL
SEQ ID NO:8	-----TSTTLPLSAAVLQNSERHVLPPQFPRLKVQCLRPHQWARVPNDSLHIHTLKLSDIRGWSILCEDPVSMIAL
SEQ ID NO:10	-----TPTTLPLSAAVLPTSDKHINPQSPRLKVQCLRPHQWARVPNTALQVHALKLSDIRGWSMLCEDPVSMIAL
SEQ ID NO:56	-----TPTTLPLSAAVLPTSDKHINPQSPRLKVQCLRPHQWARVPNTALQVHALKLSDIRGWSMLCEDPVSMIAL
SEQ ID NO:57	-----TPTTLPLSAAVLPTSDKHINPQFPRLKVQCLKPHQWARVPNTALQVHALKLSDIRGWSMLCEDPVSMIAL
SEQ ID NO:58	-----IKYTFPLSAAVLFKCEKSLVPFCPPRLTVEQIESVYWARVPNETLRTTALKLSEVRGWSVLCNDPVRIMSV
SEQ ID NO:59	KILERRSSVQSEIAQMSVQNQCPLPSAAWFRGDTHTNPTQCPSRVEQVMYTNWAPLQTMNIETKKNSDNNGWLVSCEPEVSWLGV
SEQ ID NO:60	-----IKNVMPLSAGLFKSEHKNPVPCPPRLHVQFLSHVLWSRMPNQFLKVDVSRISERQGWLVQCLDPLQFMSL
SEQ ID NO:61	-----IKNVMPLSAGLFKSEHKNPVPCPPRLHVQFLSHVLWSRMPNQFLKVDVSRISERQGWLVQCLDPLQFMSL
SEQ ID NO:62	-----IKNVMPLSAGLFKSEHKNPVPCPPRLHVQFLSHVLWSRMPNQFLKVDVSRISERQGWLVQCLDPLQFMSL
SEQ ID NO:2	HIPEEDRCIDILELEIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCSHADQKQLLYAIQSQYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:128	HIPEEDRCIDILEPIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSQYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:130	HIPEEDRCIDILELEIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSQYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:144	HIPEEDRCMDILELEIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSQYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:146	HIPEEDRCIDILELEIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSQYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:4	HIPEEDRCIDILELEIEMDKLLSFHAHTLTLYAAVCYQANYRAAAHILCTHVNQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:6	HIPEEDRCIDILELEIEMDKLLSFHAHTLTLYAAVCYQANYRAAAHILCTHVNQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:8	HIPEEDRSIDILELEIEMDKLLSFHAHTLTLYAALCFQSNYRAAAHILCTHVNQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:10	RIPEEDRCIDILELEIEMDKLLSFHAHSLTLYAALCYQSNYRAAAHALCQHDQKQLLYAIRSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:56	HIPEEDRCIDILELEIEMDKLLSFHAHSLTLYAALCYQSNYRAAAHALCQHDQKQLLYAIRSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:57	HIPEEDRCIDILELEIDRLQFAHTLTLYSALCYQSNYRAAAHALCSHDQKQLLYAICSEYMSGPLRGLFGYDILLTALHLESHATTMEV
SEQ ID NO:58	YIPEKDQSLDILEMIEMDPDMEFRQTLNLYCKLASHGNHVAHTLCQHIDEDQIMVAIKSHYLSGPMRQGFYDILLTALHLESHATTMEV
SEQ ID NO:59	HIPEENRCMDILELVEHEDDLKFAHTLRLYCSVCSHGHHVAHALINHVNEQDQMLVCLQCPYISGPIRIGYNNLHVAHLQTHVSARLK
SEQ ID NO:60	HIPEENRSVDILELTEQEELLQFHYHTLRLYSVAVCALGNHRVAHALCSHDVEPQLLYAIENKYPGLLRAGYVDILLIDIHLSYATARLM
SEQ ID NO:61	HIPEENRSVDILELTEQEELLKFHYHTLRLYSVAVCALGNHRVAHALCSHDVEPQLLYAIENKYPGLLRAGYVDILLIDIHLSYATARLM
SEQ ID NO:62	HIPEENRSVDILELTEQEELLKFHYHTLRLYSVAVCALGNHRVAHALCSHDVEPQLLYAIENKYPGLLRAGYVDILLIDIHLSYATARLM

**FIGURE 1L**

```
SEQ ID NO:2 CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFPLEVVVREF
SEQ ID NO:128 CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFPLEVAREF
SEQ ID NO:130 CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFPLEVVVREF
SEQ ID NO:144 CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFPLEVVVREF
SEQ ID NO:146 CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFPLEVVVREF
SEQ ID NO:4 CKXEYIIPLGHELTLYDDPQMG--HSLR-----SLQTESVRPQMKMTDIA-----VIDNVRNLYSPYFPLQVVREY
SEQ ID NO:6 CKXEYIIPLGHELTALYDDPQMG--HSLR-----SLQTESVRPQMKMTDIA-----VIDNVRNLYSPYFPLQVVREY
SEQ ID NO:8 CKNEFIIPGQELKOVVEDPMC--HSLR-----SLQTESVRPQMKMTDIA-----PSEVVDNIRSLYSPQFPLDVVRDF
SEQ ID NO:10 CKNEYITPLGAELKELYSDEEMQ--HSLR-----SLQTESVRPQMKMTDIA-----EPIPDIDQLYSPKFFPLEVVVRQF
SEQ ID NO:56 CKNEYITPLGAELKELYSDEEMQ--HSLR-----SLQTESVRPQMKMTDIA-----EPIPDIDQLYSPKFFPLEVVVRQF
SEQ ID NO:57 CKNEYIIPLGSELRELYIDPMC--HSLR-----SLQTESVRPQMKMTDIA-----EPIPDIDQLYSPKFFPLEVVVRQF
SEQ ID NO:58 MAKEYVPLVPQLQIKNVLDPS--HSLR-----SLQTESVRPQMKMTDIA-----KHVSREDEMCKLLPPSVDFEALKKH
SEQ ID NO:59 TQDEFTIPLMAGPKPVDEELDISSMSIKRALSTTKSVIRPQLNIGPSAD--S-----SHQSFQSMKASEQAPPGFNMVVLKQH
SEQ ID NO:60 MNNEFIVPMTTEETKSITLFPDENKKHGLP--GIGLSTSLRPRMF-----SSPSFVSISNDCYQYSPEFFPLDILKAK
SEQ ID NO:61 MNNEFIVPMTTEETKSITLFPDENKKHGLP--GIGLSTSLRPRMF-----SSPSFVSINNECYQYSPEFFPLDILKAK
SEQ ID NO:62 MNNEFIVPMTTEETKSITLFPDENKKHGLP--GIGLSTSLRPRMF-----SSPSFVSINNECYQYSPEFFPLDILKSK

SEQ ID NO:2 VMQALAEAVETNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO:128 VMQALAEAVETNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO:130 VMQALAEAVETNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO:144 VMQALAEAVETNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO:146 VMQALAEAVETNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO:4 VMAALEEAVLVNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----E
SEQ ID NO:6 VMAALEEAVLVNQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----E
SEQ ID NO:8 VMAALDEAVQINQLHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----A
SEQ ID NO:10 VMEALKDAVEINQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----A
SEQ ID NO:56 VMEALKDAVEINQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----A
SEQ ID NO:57 VMSALQEAQVQINQVHNWDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO:58 VMESLQSAATHAVMNCRLDGGNTNHFEPFLFKDQLLVIGLINDDEELECRLIHPQAFD-----
SEQ ID NO:59 VISSLGEAVAHGVSHCRDPVGGSNENFLPLIKLVDRLLLVGMMRDEDEVEKLLIMTNPETWDP-----D
SEQ ID NO:60 TIQMLTEAVKEGSLHARDPVGGTTEFLFVPLIKLFTYLLIMGIFHNEDLKHILQLEPSVFKEAAVPEEGGTPEKEISIEDAKLE--GE
SEQ ID NO:61 TIQMLTEAVKEGSLHARDPVGGTTEFLFVPLIKLFTYLLIMGIFHNEDLKHILQLEPSVFKEAAVPEEGGTPEKEISIEDAKLE--GE
SEQ ID NO:62 TIQMLTEAVKEGSLHARDPVGGTTEFLFVPLIKLFTYLLIMGIFHNEDLKHILQLEPSVFKEAAVPEEGGTPEKEISIEDAKLE--GE
```

**FIGURE 1M**

SEQ ID NO: 2	FDKEGKDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEATIAFAHDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 128	FDKEGKDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAIIAFAHDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 130	FDKEGKDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAIIAFAHDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 144	FDKGGKDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAIIAFAHDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 146	FDKEGKDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAIIAFAHDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 4	FQKDGPDHRKGLLHMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSYQFVNDIQIDQLRRYNEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 6	FQKDGPDHRKGLLHMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSYQFVNDIQIDQLRRYNEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 8	FEKDGKDEHRKGLLTMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSVDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 10	FEKDGKDEHRKGLLTMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSVDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 56	FEKDGKDEHRKGLLTMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSVDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 57	FEKDGKDEHRKGLLTMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSVDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 58	FEKDGKDEHRKGLLTMKMAEGAKLQMCYLLHHLCDIQLRHRVESIISFSVDFVGDLTQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 59	-ENYETGTTQGLTQLELAEPVKIQLVSIIDHLCIDQLRHRVESIISFAHNVYVGLQDQDLRRYTEIKQ-SDLP SAVA AAKKTREFRCP
SEQ ID NO: 60	ETYKKGVSSETVGMQLQHLDEPVLKAMCFLQLQHLCDQLRHRVESIISFSDDFVEECQADQLRRFLEVRN-TDMP PVI AAKKTREFRSP
SEQ ID NO: 61	EEAKGKRPKEGLLQMKLPEPVKLQMCYLLQYLCDCQVRHRIEIAVAFSDDFVAKLQDNQRFYNEVMQALNMSAALTARKTKEFRSP
SEQ ID NO: 62	EEAKGKRPKEGLLQMKLPEPVKLQMCYLLQYLCDCQVRHRIEIAVAFSDDFVAKLQDNQRFYNEVMQALNMSAALTARKTKEFRSP
SEQ ID NO: 2	EQMNVILSFKHLEE-----EDKENCPCGGEELIARNNEFHDITLMAHVS LHALQEPDAAENQEP- AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 128	EQMNVILSFKHLEE-----EDKENCPCGGEELIARNNEFHDITLMAHVS LHALQEPDAAENQEP- AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 130	EQMNVILSFKHLEE-----EDKENCPCGGEELIARNNEFHDITLMAHVS LHALQEPDAAENQEP- AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 144	EQMNVILSFKHLEE-----EDKENCPCGGEELIARNNEFHDITLMAHVS LHALQEPDAAENQEP- AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 146	EQMNVILSFKHLEE-----EDKENCPCGGEELIARNNEFHDITLMAHVS LHALQEPDAAENQEP- AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 4	EQMNVILSFKHLEE-----DDKENCLIGDELRRERNEFNERLMKQISLVALQSEDDKSDLNNLNKEGKIKQFYNF INAVKDEANE
SEQ ID NO: 6	EQMNVILSFKHLEE-----DDKENCLIGDELRRERNEFNERLMKQISLVALQSEDDKSDLNNLNKEGKIKQFYNF INAVKDEANE
SEQ ID NO: 8	EQMNVILSFKHLEE-----GDIENCPGDELRRERLNSFHEKLMHKVSLALQEPSEEEASAEVKKPNALNRLYNF INAVKELEET
SEQ ID NO: 10	EQMNVILSFKHLEE-----DDQDNCTCGLELRGLDGHDSLMQKVS LNALQEPDGVGEGTAIEEVKTGPTIKIYNF INTVKELEEG
SEQ ID NO: 56	EQMNVILSFKHLEE-----DDQDNCTCGLELRGLDGHDSLMQKVS LNALQEPDGVGEGTAIEEVKTGPTIKIYNF INTVKELEEG
SEQ ID NO: 57	EQMNVILSFKHLEE-----DDLENASCGPELRNLTJEFHEKLMGKVS LNALQEPDGVGEGTAIEEVKTGPTIKIYNF INTVKELEEG
SEQ ID NO: 58	EQMNVILSFKHLEE-----DDGMCPREDLRSLVLEFSTLAKHCGVHETQE-EKSTDSRGVIR-----RFLSWLSGSR--KDA
SEQ ID NO: 59	EQMNVILSFKHLEE-----DKSECPCEEIRDLQDLDFHEDLMTCHGIELDEGSLDGNLDTIRG-----RLLSLVEKVTYLLKKK
SEQ ID NO: 60	EQMNVILSFKHLEE-----DKSECPCEEIRDLQDLDFHEDLMTCHGIELDEGSLDGNLDTIRG-----RLLSLVEKVTYLLKKK
SEQ ID NO: 61	EQMNVILSFKHLEE-----DKSECPCEEIRDLQDLDFHEDLMTCHGIELDEGSLDGNLDTIRG-----RLLSLVEKVTYLLKKK
SEQ ID NO: 62	EQMNVILSFKHLEE-----DKSECPCEEIRDLQDLDFHEDLMTCHGIELDEGSLDGNLDTIRG-----RLLSLVEKVTYLLKKK

**FIGURE 1N**

SEQ ID NO: 2	AKAIEPPKKTPEEKFRKVLQITIVNAAEESQIETPKLVREMFSLVRQYDAVGELIRALEKTYVINAKTKLDVAEMWVGLSQIRALLPV
SEQ ID NO: 128	AKAIEPPKKTPEEKFRKVLQITIVNAAEESQIETPKLVREMFSLVRQYDAVGELIRALEKTYVINAKTKLDVAEMWVGLSQIRALLPV
SEQ ID NO: 130	AKAIEPPKKTPEEKFRKVLQITIVNAAEESQIETPKLVREMFSLVRQYDAVGELIRALEKTYVINAKTKLDVAGMWVGLSQIRALLPV
SEQ ID NO: 144	AKAIEPPKKTPEEKFRKVLQITIVNAAEESQIETPKLVREMFSLVRQYDAVGELIRALEKTYVINAKTKLDVAEMWVGLSQIRALLPV
SEQ ID NO: 146	AKAIEPPKKTPEEKFRKVLQITIVNAAEESQIETPKLVREMFSLVRQYDAVGELIRALEKTYVINAKTKLDVAEMWVGLSQIRALLPV
SEQ ID NO: 4	DGLN-EHEKKIPEEIEFRKVLITIVSWAAEETQIETPKLVREMFSLVRQYDSVGELIRALEKTYVINFKTKEDVAQMWVGLSQIRSLLPV
SEQ ID NO: 6	NGLN-EHEKKIPEEIEFRKVLITIVSWAAEETQIETPKLVREMFSLVRQYDSVGELIRALEKTYVINFKTKEDVAQMWVGLSQIRSLLPV
SEQ ID NO: 8	PQIEEPEKKTPEEIEFRKVLITIVSWAAEETQIESPKLVREMFSLVRQYDTVGELIRALEKTYVINTRARDDVAEMWVGLSQIRALLPV
SEQ ID NO: 10	PKEVEPEKKTPEEIEFRKVLITIVSWAAEESQIENPKLVREMFSLLRQYDTVGELIRALEKTYVINTRARDDVAEMWVGLSQIRALLPV
SEQ ID NO: 56	PKEVEPEKKTPEEIEFRKVLITIVSWAAEESQIENPKLVREMFSLLRQYDTVGELIRALEKTYVINTRARDDVAEMWVGLSQIRALLPV
SEQ ID NO: 57	PKEPVEEKKTPKEEIEFRKVLIKQLVSWAAEESQIENPKLVREMFGLLRQYDTIGELIKALNKTYVINSTRKGDVANMWIGLSQIRALLPV
SEQ ID NO: 58	VLEEGMEMQKGTQNFREIIVTMLREWAQADFIESKSLIRNMFRLLRQYSGIREIRDAMSQTYVFHERNEKDVDTDFLVYLIQIRELLTV
SEQ ID NO: 59	SPAGAILQEKFSDSLHLISNTMIKAAEKKHIEDPTLVREMFNLLHRQYDVGELCSALQKSYVSSNQRDDIVHLLTSLGQIRSLTIV
SEQ ID NO: 60	QAEKPVASDSRKCSLQQLISETMVRWAQESVIEDPELVAMFVLLHRQYDYGIGGLVRALPKTYTINGVSVEDTINLLASLGQIRSLLSV
SEQ ID NO: 61	QTEKPVESDSRKCSLQQLISETMVRWAQESVIEDPELVAMFVLLHRQYDYGIGGLVRALPKTYTINGVSVEDTINLLASLGQIRSLLSV
SEQ ID NO: 62	QAEKPVESDSKCSLQQLISETMVRWAQESVIEDPELVAMFVLLHRQYDYGIGGLVRALPKTYTINGVSVEDTINLLASLGQIRSLLSV
SEQ ID NO: 2	QMSQEEEEELMRKRLWKLNNHTFFQHPDDLIRVLRVHENVMVMMNTLGRRAQAQS---DAQPSSQPVAED-----
SEQ ID NO: 128	QMSQEEEEELMRKRLWKLNNHTFFQHPDDLIRVLRVHENVMVMMNTLGRRAQAQS---DAQPSSQPVAED-----
SEQ ID NO: 130	QMSQEEEEELMRKRLWKLNNHTFFQHPDDLIRVLRVHENVMVMMNTLGRRAQAQS---DAQPSSQPVAED-----
SEQ ID NO: 144	QMSQEEEEELMRKRLWKLNNHTFFQHPDDLIRVLRVHENVMVMMNTLGRRAQAQS---DAQPSSQPVAED-----
SEQ ID NO: 146	QMSQEEEEELMRKRLWKLNNHTFFQHPDDLIRVLRVHENVMVMMNTLGRRAQAQS---DAQPSSQPVAED-----
SEQ ID NO: 4	QMSQEEEEELMRERLWKLNNHTFFQHPDDLIRVLRMHENVMVMMNTLGRRAQAQSQ-PGGTPVTGQDGEIV-----
SEQ ID NO: 6	QMSQEEEEELMRERLWKLNNHTFFQHPDDLIRVLRMHENVMVMMNTLGRRAQAQSQ-PGGTIVTGQDGEIV-----
SEQ ID NO: 8	QMSQEEEEELMRERLWKLNNHTFFQHPDDLIRVLRVHENVMVMMNTLGRRAQAQS---DAPQAGQEGEPV-----
SEQ ID NO: 10	QMSQEEEEELMRKRLWKLNNATFFQHPDDLIRILRVHENVMVMMNTLGRRAQAQS---DAPTQSEVAEGAP-----
SEQ ID NO: 56	QMSQEEEEELMRKRLWKLNNATFFQHPDDLIRILRVHENVMVMMNTLGRRAQAQS---DAPTQSEVAEGAP-----
SEQ ID NO: 57	QMSQEEEEELMRKRLWKLNNHTFFQHPDDLIRILRVHENVMVMMNTLGRRAQAQS---DAPVQTADGEESA-----
SEQ ID NO: 58	QFEHTEEAAILKRGWLKLMNNRIFQHPDLMRLLSVHENVMSIMMNILTAQQG-----TVEHEGDELKEK-----
SEQ ID NO: 59	QMGSVEEEAALIKHLWEVTDNKKVFYQHPDLMRALCVHETVMNVMMNVNLEKHQTSIQLTSDDEEAESSAQGGVGTGASTAAPKTVQCVYRF
SEQ ID NO: 60	RMGKEEEKLMIRGLGDIRMNNKVFYQHPNLMRALGMHETVMEVMNVNVLGGGE-----
SEQ ID NO: 61	RMGKEEEKLMIRGLGDIRMNNKVFYQHPNLMRALGMHETVMEVMNVNVLGGGE-----
SEQ ID NO: 62	RMGKEEEKLMIRGLGDIRMNNKVFYQHPNLMRALGMHETVMEVMNVNVLGGGE-----

**FIGURE 10**

SEQ ID NO: 2	-----NKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 128	-----SKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 130	-----NKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 144	-----NKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 146	-----NKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 4	-----PKEKDTSHMVMVACCRFLCYFCRTSRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 6	-----PKEKDTSHMVMVACCRFLCYFCRTSRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 8	-----AKEKDTSHMVMVACCRFLCYFCRTSRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 10	-----SKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 56	-----SKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 57	-----PKEKDTSHMVMVACCRFLCYFCRTGRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 58	-----APIKDASEMVMVACCRFLCYFCRTSRNQKAMFEHLDFLLDNATMLLARPSPSRGSPPLDVAYSSFMDDNNELALALKEEELDK
SEQ ID NO: 59	LARRARMCHSKORFARALIAGCCRFLCYFCRTSRNQKAMFDHDFLLENSNILLRPSLRGSGTPLDVAYSSLMNTELALALREHYLEK
SEQ ID NO: 60	-----SKEITFPKMWANCCRFLCYFCRISRNQKAMFDHLSYLLNSSVGLASPMRGSTPLDVAAASVMDNNELALALREPDLEK
SEQ ID NO: 61	-----SKEITFPKMWANCCRFLCYFCRISRNQKAMFDHLSYLLNSSVGLASPMRGSTPLDVAAASVMDNNELALALREPDLEK
SEQ ID NO: 62	-----SKEITFPKMWANCCRFLCYFCRISRNQKAMFDHLSYLLNSSVGLASPMRGSTPLDVAAASVMDNNELALALREPDLEK
SEQ ID NO: 2	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLKAIIVDANKM
SEQ ID NO: 128	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLKAIIVDANKM
SEQ ID NO: 130	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLKAIIVDANKM
SEQ ID NO: 144	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLKAIIVDANKM
SEQ ID NO: 146	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLKAIIVDANKM
SEQ ID NO: 4	IAI - YLSRCGLQSNSELIEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 6	IAI - YLSRCGLQSNSELIEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 8	IAI - YLSRCGLQSNSELIEKGYDPLGWDPVEGERYLDLFLRFCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 10	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLFRAIVEANRM
SEQ ID NO: 56	IAV - YLSRCGLQSNSELVEKGYDPLGWDPVEGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLFRAIVEANRM
SEQ ID NO: 57	IAI - YLSRCGLQSNSELIERGYDPLGWDPVEGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 58	VAV - YLSRCGLQSNSELITKGYPDIGNDPTDGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 59	VIT - FLSCGVDNARLRAMGNPYLDGTPDGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 60	VVARYLAGCGLQSCQMLVSKGYDPIGNPVEGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 61	VVR - YLAGCGLQSCQMLVSKGYDPIGNPVEGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM
SEQ ID NO: 62	VVR - YLAGCGLQSCQMLVSKGYDPIGNPVEGERYDPLFLRYCVWVNGESVEENANLVIRLLIRRPECLGPALRGEG - EGLLRAIIVDANKM



**FIGURE 1P**

SEQ ID NO: 2	SERADRRKRLRE-----MEQ--EGDVNFSHPLPESED-EDYIDTGAAILNFYCTLVLDLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 128	SERADRRKRLRE-----MEQ--EGDVNFSHPLPESED-EDYIDTGAAILNFYCTLVLDLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 130	SERADRRKRLRE-----MEQ--EGDVNFSHPLPESED-EDYIDTGAAILNFYCTLVLDLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 144	SERADRRKRLRE-----MEQ--EGDVNFSHPLPESED-EDYIDTGAAILNFYCTLVLDLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 146	SERADRRKRLRE-----MEQ--EGDVNFSHPLPESED-EDYIDTGAAILNFYCTLVLDLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 4	SERITERRKFLE-----ES-GNQENIQLDHPLPESEDD-EDYIDTGAAILNFYCTLVLDLLGRCAPDSSVIALGKNESLRARAILRSLVP
SEQ ID NO: 6	SERIAERRKFLE-----ES-GNQENIQLDHPLPESEDD-EDYIDTGAAILNFYCTLVLDLLGRCAPDSSVIALGKNESLRARAILRSLVP
SEQ ID NO: 8	SERIADRRKVMQD-----EPEGTTVMVHFEHPLPESEDD-EDYIDTGAAILAFYCTLVLDLLGRCAPDSSVIAQGKNESLRARAILRSLVP
SEQ ID NO: 10	SERISDRCKMQD-----EAEGTIAGLNFTHPLPEGEED-EDYIDTGAAILNFYCTLVLDLLGRCAPDASVIEQGKNESLRARAILRSLVP
SEQ ID NO: 56	SERISDRCKMQD-----EAEGTIAGLNFTHPLPEGEED-EDYIDTGAAILNFYCTLVLDLLGRCAPDASVIEQGKNESLRARAILRSLVP
SEQ ID NO: 57	SERISERRKMQD-----EAEGTITGLNFHSHPLPEGEED-EDYIDTGAAILCFYCTLVLDLLGRCAPDAVAVIEQGKNESLRARAILRSLVP
SEQ ID NO: 58	SEDIRLLENDSHPL-----SLSSGLLGENPTYPSKDAEGEDYIDLGAATLDFYSSLVLDLLAKCAPDPMALQAGKGDLSLRARAILRSLIS
SEQ ID NO: 59	SETAEEGYLISAPTMATISEEDGEVRPIDASGQDEEGDED-EDDVDTGGAILTFYATLIDLGRCAPDENRLSQGRTEPQIRAILQSLVP
SEQ ID NO: 60	AEDPSR-----DGPSPTSGSSKTLDEIEEEE-DDTIHMGNAIMTFYALIDLGRCAPEMHLLHAGKGEAIRIRSILRSLIP
SEQ ID NO: 61	AEDPSR-----DGPSPTSGSSKTLDEIEEEE-DDTIHMGNAIMTFYALIDLGRCAPEMHLLHAGKGEAIRIRSILRSLIP
SEQ ID NO: 62	AEDPSR-----DGPSPTSGSSKTLDEIEEEE-DDTIHMGNAIMTFYALIDLGRCAPEMHLLHAGKGEAIRIRSILRSLIP
SEQ ID NO: 2	LEDLQGVLSLRFTLNNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRNDGCS
SEQ ID NO: 128	LEDLQGVLSLRFTLNNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRNDGCS
SEQ ID NO: 130	LEDLQGVLSLRFTLNNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRNDGCS
SEQ ID NO: 144	LEDLQGVLSLRFTLNNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRNDGCS
SEQ ID NO: 146	LEDLQGVLSLRFTLNNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRNDGCS
SEQ ID NO: 4	LEDLHGVLSLRFTLQNPAA-----GQDRPKSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRTATMLDRNDGLES
SEQ ID NO: 6	LEDLHGVLSLRFTLQNPAA-----GQDRPKSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRTATMLDRNDGLES
SEQ ID NO: 8	LEDLQGVLSLKFTLQNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRNDGSES
SEQ ID NO: 10	LEDLQGVLSLKFTLSQAP-----GEEKPKSDMP SGLIPNNKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRTATILDKSDGSES
SEQ ID NO: 56	LEDLQGVLSLKFTLSQAP-----GEEKPKSDMP SGLIPNNKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRTATILDKSDGSES
SEQ ID NO: 57	LEDLQGVLSLKFTLTPAL-----GEDRP KSDMP SGLIPGHKQSVGLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRSDGSES
SEQ ID NO: 58	LDDLQGVLSLKFTLTPAL-----SIEDTGLPLLPNNHKSGLLFLDRVVGITQELFYKLLLEAFPLDLRAATMLDRSDGSES
SEQ ID NO: 59	LDDLGVNLNKFILPSPQKIYEKKDDGAGKPLGADLKG-LTPVHKEAMLLFLGRVVGITQELFYKLLLEAFPLDLRAATMLDRSDGSES
SEQ ID NO: 60	LGDVGVVISIAFQMPTIAK-----DGKVVPEPDM SAGFCPDHKAAMVFLDRVVGITQELFYKLLLEAFPLDLRAAAASLDTAALSAT
SEQ ID NO: 61	LGDVGVVISIAFQMPTIAK-----DGNVVPEPDM SAGFCPDHKAAMVFLDRVVGITQELFYKLLLEAFPLDLRAAAASLDTAALSAT
SEQ ID NO: 62	LGDVGVVISIAFQMPTIAK-----DGNVVPEPDM SAGFCPDHKAAMVFLDRVVGITQELFYKLLLEAFPLDLRAAAASLDTAALSAT

**FIGURE 1Q**

SEQ ID NO: 2 DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 128 DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 130 DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 144 DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 146 DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 4 DMALAMNRYIGKSVLPLLIGHSKFYSESGNYANLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 6 DMALAMNRYIGNSVLPLLIGHSKFYSESGNYANLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 8 DMALAMNRYIGNSILPLLIHSHKIFYNEADNYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLT  
SEQ ID NO: 10 DMALAMNRYIGNSILPLLIHSHKIFYNEADNYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 56 DMALAMNRYIGNSILPLLIHSHKIFYNEADNYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 57 DMALAMNRYIGNSILPLLIHSHKIFYNEADNYASLLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 58 DTALALNRYLCNSVLPLLTNHSHFFADAEHHSALLDATHVTYVRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS  
SEQ ID NO: 59 DMALALNRYICNSVLPLLTRHSEMFESADQFASLLDSTLHVTYVRLASCRLTRGQRTVADFLVALTRSLKPSMMQRLRLRKLINDVPVLA  
SEQ ID NO: 60 DMALALNRYLCNTAVLPLLTRCARLFCAGTEHHSALLDSTLHVTYVRLSKGCSLTKAQSDSIEVCLLSICGQLRPSMMQHLLRRLVFDVPLLN  
SEQ ID NO: 61 DMALALNRYLCNTAVLPLLTRCAPLFCAGTEHHSALLDSTLHVTYVRLSKGCSLTKAQSDSIEVCLLSICGQLRPSMMQHLLRRLVFDVPLLN  
SEQ ID NO: 62 DMALALNRYLCNTAVLPLLTRCAPLFCAGTEHHSALLDSTLHVTYVRLSKGCSLTKAQSDSIEVCLLSICGQLRPSMMQHLLRRLVFDVPLLN  
  
SEQ ID NO: 2 EY-TTVALRLTLHYERCAKYVGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 128 EY-TTVALRLTLHYERCAKYVGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 130 EY-TTVALRLTLHYERCAKYVGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 144 EY-TTVALRLTLHYERCAKYVGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 146 EY-TTVALRLTLHYERCAKYVGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 4 EY-TTVALRLTLHYDRCAKYVGSTGG--QGIYGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 6 EY-TTVALRLTLHYDRCAKYVGSTGG--QGIYGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 8 EY-TTVALRLTLHYDRCAKYVGSTGG--QGLYGSSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 10 EY-TTVALRLTLHFDRCAKYVGSTQG--QGSYGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 56 EY-TTVALRLTLHFDRCAKYVGSTQG--QGSYGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNYD  
SEQ ID NO: 57 EY-TTVALRLTLHYERCAKYGTGGQASQFGASSDEEKRLTMMLFSSIFDLSKMDYEPFLFGKALPCLIAIGCALPPDYTLTKNSD  
SEQ ID NO: 58 DMNVLVPLRLITLHYERCCKYVGSGNH-----YGVASEQEKRLSMLLFDALFTGLDALAEKYEDEELFDRLPCLTAIGSALPPDYTLTSGLE  
SEQ ID NO: 59 EY-SYVALKILQHLHYERCVSYYGNGG--WGSYGAANDEEKRLTMMLFTGLDALAEKYEDEELFDRLPCLTAIGSALPPDYTLTSGLE  
SEQ ID NO: 60 EH-AKMPLKLLTNHYERCWKYYCLPGG--WGNFGAASEEELHLSRKLFWGIFDALSQKYEQELFKLALPCLSAVAGALPPDYMESNY--  
SEQ ID NO: 61 EH-AKMPLKLLTNHYERCWKYYCLPGG--WGNFGAASEEELHLSRKLFWGIFDALSQKYEQELFKLALPCLSAVAGALPPDYMESNY--  
SEQ ID NO: 62 EH-AKMPLKLLTNHYERCWKYYCLPGG--WGNFGAASEEELHLSRKLFWGIFDALSQKYEQELFKLALPCLSAVAGALPPDYMESNY--

**FIGURE 1R**

SEQ ID NO: 2	DEFYGEQAAGDLDPQYDPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKLENGWVYGEQWSDSQKTHPRLKPYNMLNDY-----EK
SEQ ID NO: 128	DEFYGEQAAGDLDPQYDPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKLENGWVYGEQWSDSQKTHPRLKPYNMLNDY-----EK
SEQ ID NO: 130	DEFYGEQAAGDLDPQYDPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKLENGWVYGEQWSDSQKTHPRLKPYNMLNDY-----EK
SEQ ID NO: 144	GEFYGEQAAGDLDPQYDPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKLENGWVYGEQWSDSQKTHPRLKPYNMLNDY-----EK
SEQ ID NO: 146	DEFYGEQAAGDLDPQYDPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKLENGWVYGEQWSDSQKTHPRLKPYNMLNDY-----EK
SEQ ID NO: 4	DEWYGSQNIQGPSDGPYPNPQINTNSIVLDNDLNSIVHVKFSEHYHDAWANRKLKLENGWVYGEQFNDVNKSHPRLKPYMMLSEY-----EK
SEQ ID NO: 6	DEWYGSQNIQGPSDGPYPNPQINTNSIVLDNDLNSIVHVKFSEHYHDAWANRKLKLENGWVYGEQFNDVNKSHPRLKPYMMLSEY-----EK
SEQ ID NO: 8	DELYGARDSQAGSDGPYPNPQINTNSIVLDNDLNSIVHVKFSEHYHDAWASRRLEGGWYGDQWSDSQKTHPRLKPYNMLNDYVEPSIER
SEQ ID NO: 10	EDYYGRQMG--APDQPYMPNPIDTNNVHLDNDLNSIVQKFSEHYHDAWASRRLEGGWYGDQWSDSQKTHPRLKPYNMLSEY-----ER
SEQ ID NO: 56	EDYYGRQMG--APDQPYMPNPIDTNNVHLDNDLNSIVQKFSEHYHDAWASRRLEGGWYGDQWSDSQKTHPRLKPYNMLSEY-----ER
SEQ ID NO: 57	DDLKGKPTGG--EGAWIPRTVDVSRCEINRDLEKMTLFAEHFHDWSASRKLEKGVHGDLYSRANFTHPRLKPYNMLSEY-----ER
SEQ ID NO: 58	DVRNKRREE---FDADGIYQPKPVDNKNVLLNESLFSDFAEHLHDSWALAMFNGWTHGEAENSAMKESCMRLRPYKTLTK-----EK
SEQ ID NO: 59	DESYVRESC--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKIQLPMKPYKLLSEK-----EK
SEQ ID NO: 60	VSMMEKQSS--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKIQLPMKPYKLLSEK-----EK
SEQ ID NO: 61	VSMMEKQSS--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKIQLPMKPYKLLSEK-----EK
SEQ ID NO: 62	VSMMEKQSS--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKIQLPMKPYKLLSEK-----EK
SEQ ID NO: 2	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMGRQSKSGGRPPEIVT--DSATPFNYPNPHVPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO: 128	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMRRQSKSGGRPPEIVT--DSATPFNYPNPHVPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO: 130	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMRRQSKSGGRPPEIVT--DSATPFNYPNPHVPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO: 144	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMRRQSKSGGRPPEIVT--DSATPFNYPNPHVPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO: 146	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMRRQSKSGGRPPEIVT--DSATPFNYPNPHVPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO: 4	ELYKEPVRESLKALLAIGWSIEHSENDAPLNNRGSVRRQSK-----SN-----ENVTPFDYHPNPIDMTNLTLTLSREMQNMAERLAENSHD
SEQ ID NO: 6	ELYKEPVRESLKALLAIGWSIEHSENDAPLNNRGSVRRQSK-----SN-----ENVTPFDYHPNPIDMTNLTLTLSREMQNMAERLAENSHD
SEQ ID NO: 8	ERYKEPVRESLKALLAIGWTVEHSEADVPLTSRGSIRRRQSK-----PNAMV--DSSTPFNYPNPHVPVDMTNLTLSREMQNMAERLAENSHD
SEQ ID NO: 10	ERYRDPVRECLKGLLAIGWTVEHSEVEVPLNHRGSTRRQSK-----PQINE---GSPFNYPNPHVPVDMTNLTLSREMQNMAERLAENSHD
SEQ ID NO: 56	ERYRDPVRECLKGLLAIGWTVEHSEVEVPLNHRGSTRRQSK-----PQINEFQNEGSPFNYPNPHVPVDMTNLTLSREMQNMAERLAENSHD
SEQ ID NO: 57	ERYRDPVRECLKGLLAIGWTVEHSEVEVPLNHRGSTRRQSK-----PNLEQDGTGSPFNYPNPHVPVDMTNLTLSREMQNMAERLAENSHD
SEQ ID NO: 58	SFYKERCSECLKALMAWNYSEFEMDRDAN-DRASAARTLSG-----TSISNFAKPIDLSMTLEKDMVNAEKMMAEHSHL
SEQ ID NO: 59	DSYREPVRECLKALLAWGWSVERSKASEQQSAHRPRRLSK-----ASLGA---MESPHGYNPRPIDVSNITLTLSREMQNMAERLAENSHD
SEQ ID NO: 60	EIYRWPIKESLKTMLAWGWRIERTRREGDSMALYNRTRRISQ-----TSQVS-----IDAAHGYSRAIDMSNVTLSRDLHAMAEMMAENYHN
SEQ ID NO: 61	EIYRWPIKESLKTMLAWGWRIERTRREGDSMALYNRTRRISQ-----TSQVS-----VDAAHGYSRAIDMSNVTLSRDLHAMAEMMAENYHN
SEQ ID NO: 62	EIYRWPIKESLKTMLARTMTRTERTRREGDSMALYNRTRRISQ-----TSQVS-----VDAAHGYSRAIDMSNVTLSRDLHAMAEMMAENYHN

**FIGURE 1S**

SEQ ID NO: 2	IWAKKKBELVTNGGGIHPQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRPSKAPQ-SDTEQT-TTGVAIELRFAYSLLLEKLIQY
SEQ ID NO: 128	IWAKKKBELVTNGGGIHPQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRPSKAPQ-SDTEQT-TTGVAIELRFAYSLLLEKLIQY
SEQ ID NO: 130	IWAKKKBELVTNGGGIHPQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRPSKAPQ-SDTEQT-TTGVAIELRFAYSLLLEKLIQY
SEQ ID NO: 144	IWAKKKBELVTNGGGIHPQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRPSKAPQ-SDTEQT-TTGVAIELRFAYSLLLEKLIQY
SEQ ID NO: 146	IWAKKKBELVTNGGGIHPQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRPSKAPQ-SDTEQT-TTGVAIELRFAYSLLLEKLIQY
SEQ ID NO: 4	IWAKKKBEVMLCGGGIHNQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRNRPNGPSEAEQL-AAASTGELRFSYSLLEKLIHY
SEQ ID NO: 6	IWAKKKBEVMLCGGGIHNQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRNRPNGPSEAEQL-AAASTGELRFSYSLLEKLIHY
SEQ ID NO: 8	IWAKKKBELITCGGGIHPQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLHRPSRTGGPSESEQL-AAQATGELRFAYSLLLEKLIQY
SEQ ID NO: 10	IWAKKNEELNGCGGVIHPQLVPYDILLTDKEKKKDRERSQEFLLKYMQYQYKHLKPSKGG-AVEEGG-ATQAAVELRFSYSLLEKLIQY
SEQ ID NO: 56	IWAKKNEELNGCGGVIHPQLVPYDILLTDKEKKKDRERSQEFLLKYMQYQYKHLKPSKGG-AVEEGG-ATQAAVELRFSYSLLEKLIQY
SEQ ID NO: 57	IWAKKNEELDQCGGAIHAQLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLKPSRG---QTEEPG-MSTAAIELRFAYSLLLEKLIQY
SEQ ID NO: 58	IWAKKVMNDLNTKGGFPIPLVPYDILLTDKEKKKDRERSQEFLLKYLOQYQYKHLKPSRG---QTEEPG-MSTAAIELRFAYSLLLEKLIQY
SEQ ID NO: 59	VWAKTKLEMLRGSGCHAQLVPYDILLTDSEKKKORDMAQALLKFLQVNGYRLQRHSL- --MDADGIIRGHSTIEKRFAFNLLDKLLHY
SEQ ID NO: 60	IWAKKKLELESKGGNHPLLPYDILLTAKEKAKDREKAQDILKFLQISGYVVSRGFKD- --LDLD- ----TPSIEKRFAYSFLOQLIRY
SEQ ID NO: 61	IWAKKKLELESKGGNHPLLPYDILLTAKEKAKDREKAQDILKFLQINGYAVSRGFKD- --LELD- ----TPSIEKRFAYSFLOQLIRY
SEQ ID NO: 62	IWAKKKMELESKGGNHPLLPYDILLTAKEKAKDREKAQDILKFLQINGYAVSRGFKD- --LELD- ----TPSIEKRFAYSFLOQLIRY
SEQ ID NO: 2	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNSVG- --AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO: 128	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKAVLPLMEKYFSTHRNYFIAVATATNSVG- --AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO: 130	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNSVG- --AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO: 144	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNSVG- --AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO: 146	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNSVG- --AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO: 4	IDRASINMKLLKPSG-TFSRRSSFKICTRDIKFFSKVVLPLVEKYFSTHRNYFITVATASSVLG- --AASLKEKEMVASLFCCKLANLLRSK
SEQ ID NO: 6	IDRASINMTLLKPSG-TFSRRSSFKICTRDIKFFSKVVLPLVEKYFSTHRNYFITVATASSVLG- --AASLKEKEMVASLFCCKLANLLRSK
SEQ ID NO: 8	IDRASINMKLLKPST-TFSRRSSFKTCTRDIKFFSKVVLPLVEKYFSTHRNYFIAVATANNIG- --AASLKEKEMVASLFCCKLANLLRSR
SEQ ID NO: 10	IDRATINMKLLKPST-TFSRRSSFKTATRDIKFFSKVVLPLMEKYFSTHRNYFIAIATATNIG- --AASLKEKEMVASIFCKLAALLRNR
SEQ ID NO: 56	IDRATINMKLLKPST-TFSRRSSFKTATRDIKFFSKVVLPLMEKYFSTHRNYFIAIATATNIG- --AASLKEKEMVASIFCKLAALLRNR
SEQ ID NO: 57	SDRATINMKLLKPS- --TFSRRSSFKTCTRDIKFFSKVVLPLMEKYFSSNRNYFIAIATATNSVG- --AASLKEKEMVAGLFCCKLASLLRHR
SEQ ID NO: 58	LEQASLKMKSVPKPSQ-ELTRRNSFKKEGQDVKFEKVLPMLHAYFNAHKNYFLEGSSIVQTGT- --ASNKEKEMVANLFCRLAALLRIK
SEQ ID NO: 59	VDKSQANLKPQRQDSFRSSKESGDRGYKFFAKVVLPLIEKYFQAHSSYFVADPNAPQNGRSGGASTREKELVSSLFCCKLAQLIRQK
SEQ ID NO: 60	VDEAHQYILEFDGGS- --RSKGEHFFPYEQEIKFFAKVVLPLIDQYFKNHRLYFLSAASRPLCTG- --GHASNKEKEMVTSIFLFCCKLGVLRHR
SEQ ID NO: 61	VDEAHQYILEFDGGS- --RSKGEHFFPYEQEIKFFAKVVLPLIDQYFKNHRLYFLSAASRPLCSG- --GHASNKEKEMVTSIFLFCCKLGVLRHR
SEQ ID NO: 62	VDEAHQYILEFDGGS- --RGKGEHFFPYEQEIKFFAKVVLPLIDQYFKNHRLYFLSAASRPLCSG- --GHASNKEKEMVTSIFLFCCKLGVLRHR

**FIGURE 1T**

SEQ ID NO: 2	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHITMNLQDG-KYAHLR-GTHLKTSTSLGYIHGVLLPILT
SEQ ID NO: 128	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHITMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 130	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHITMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 144	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHITMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 146	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHITMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 4	LMAFGADVRIITVRCLQVLVKAIDAKSLVKNCPEFIRTSMLTFFNNIADDLEHTIQNLHDS-RYCYLR-GTHLKTSTSLFYVNDVILPVLS
SEQ ID NO: 6	LMAFGADVRIITVRCLQVLVKAIDAKSLVKNCPEFIRTSMLTFFNNIADDLEHTIQNLHDS-RYCYLR-GTHLKTSTSLFYVNDVILPVLS
SEQ ID NO: 8	LMAFGADVRIITVRCLQVLVKAIDAKSLVKNCPEFIRTSMLTFFNNIADDLEHTIQNLQEG-KYSHLR-GAHLKTSTSLFYINDVILPVLT
SEQ ID NO: 10	LSAFGPDVRIITVRCLQVLVKGIDARTLTKNCPEFIRTSMLTFFNQTSDDLGNITLNLQDG-KYSHLR-GTHLKTSTSLGYVNVQVLLPVLT
SEQ ID NO: 56	LSAFGPDVRIITVRCLQVLVKGIDARTLTKNCPEFIRTSMLTFFNQTSDDLGNITLNLQDG-KYSHLR-GTHLKTSTSLGYVNVQVLLPVLT
SEQ ID NO: 57	LAAFGADVRIITVRCLQVLVKSIDAKSLVKNCPEFIRTSMLTFFNNIADDLEHTIQNLQDG-KYSHLR-GTHLKTSTSLGYVNVQVLLPVLT
SEQ ID NO: 58	NRAFGVAKITVKCLQGLTQALDLRTLVKNSDIVRTSLLTFFNNCADDLYASVNELKGGQYSLIR-GQALKSWNSFEFANQMIVPVLT
SEQ ID NO: 59	INLFGRLVPFIRCIHVVAQSIDASSVVKHSADAIKNGLLVFFRHASDDLVAIVDSVTSGGRFTHIKSNQVHKHSLAVNYVPGVLVPLI
SEQ ID NO: 60	ISLFGNDATSIVNCLHILGQTLDAARTVMKTGLDSVKSALRAFLDNAEEDLEKTMENLKQG-QFTHTR-SQPKGVTQIINYTTVALLPMLS
SEQ ID NO: 61	ISLFGNDATSIVNCLHILGQTLDAARTVMKTGLDSVKSALRAFLDNAEEDLEKTMENLKQG-QFTHTR-NQPRGVTQIINYTTVALLPMLS
SEQ ID NO: 62	ISLFGNDATSIVNCLHILGQTLDAARTVMKTGLDSVKSALRAFLDNAEEDLEKTMENLKQG-QFTHTR-NQPKGVTQIINYTTVALLPMLS
SEQ ID NO: 2	AKFDHLANCEYGADLLLDLDEIQVASYKMLGSLYALGTDASLTHDRKYLKTEIERHKPALGSCLCGAFSSSTFPVAFQEPHLNKHNQFSLNRI
SEQ ID NO: 128	AKFDHLANCEYGADLLLDLDEIQVASYKMLGSLYALGTDASLTHDRKYLKTEIERHKPALGSCLCGAFSSSTFPVAFQEPHLNKHNQFSLNRI
SEQ ID NO: 130	AKFDHLANCEYGADLLLDLDEIQVASYKMLGSLYALGTDASLTHDRKYLKTEIERHKPALGSCLCGAFSSSTFPVAFQEPHLNKHNQFSLNRI
SEQ ID NO: 144	AKFDHLANCEYGADLLLDLDEIQVASYKMLGSLYALGTDASLTHDRKYLKTEIERHKPALGSCLCGAFSSSTFPVAFQEPHLNKHNQFSLNRI
SEQ ID NO: 146	AKFDHLANCEYGADLLLDLDEIQVASYKMLGSLYALGTDASLTHDRKYLKTEIERHKPALGSCLCGAFSSSTFPVAFQEPHLNKHNQFSLNRI
SEQ ID NO: 4	SLFDHLAAEYEGNELLLNEIQVAAAYKMLSSLYTLGTDTSLTHDRKYLKVQLEHRHRPAFGSCLCGAFSSSTFPVAFQEPHLNKHNQYSLNRF
SEQ ID NO: 6	SLFDHLAAEYEGNELLLNEIQVAAAYKMLSSLYTLGTDTSLTHDRKYLKVQLEHRHRPAFGSCLCGAFSSSTFPVAFQEPHLNKHNQYSLNRF
SEQ ID NO: 8	AMFDHLAACEYGSDDLVLDEIQVASYKMLGSLYTLGIDVTLTHDRKYLKTEIDRHRPQLGRCLGAYASTFPVAFQEPHLNKHNQFSLVNI
SEQ ID NO: 10	AMFDHLAACEYGSDDLVLDEIQVASYKMLGSLYTLGIDVTLTHDRKYLKTEIDRHRPQLGRCLGAYASTFPVAFQEPHLNKHNQYSLNRI
SEQ ID NO: 56	AMFDHLAACEYGSDDLVLDEIQVASYKMLGSLYTLGIDVTLTHDRKYLKTEIDRHRPQLGRCLGAYASTFPVAFQEPHLNKHNQYSLNRI
SEQ ID NO: 57	SLFDHLAACEYGSDDLVLDEIQVASYKMLGSLYTLGIDVTLTHDRKYLKTEIDRHRPQLGRCLGAYASTFPVAFQEPHLNKHNQYSLNRI
SEQ ID NO: 58	TMFAHLARNHFGTDLDDLDDIQAACVYKILDSLYMVTGLSSSIHRKSIISGESEKHPGLGQCLAAAFASCFPVAFLEPFEFNKSNKFSVLAKS
SEQ ID NO: 59	SLFQHLARNHNYGADLLLDQIQVYCVIRILSCLYKVGADQSI-----Y--VKKLPAVAGELLAAFGAFPVAFLEPHLNKNPNSSLGQI
SEQ ID NO: 60	SLFEHIGQHOFGEDLILEDVQVSCYRILTSYALGTSKSI-----Y--VERQRSALGECCLAAAFAGAFPIAFLETHLDKHNVIYINTR
SEQ ID NO: 61	SLFEHIGQHOFGEDLILEDVQVSCYRILTSYALGTSKSI-----Y--VERQRSALGECCLAAAFAGAFPIAFLETHLDKHNVIYINTR
SEQ ID NO: 62	SLFEHIGQHOFGEDLILEDVQVSCYRILTSYALGTSKSI-----Y--VERQRSALGECCLAAAFAGAFPIAFLETHLDKHNVIYINTR

**FIGURE 1U**

SEQ ID NO: 2	ADHS---LEAQDIMQKMEQCMTLETILGEVDQFVESDKTYNEAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTAEH
SEQ ID NO: 128	ADHS---LEAQDIMQKMEQCMTLETILGEVDQFVESDKTYNEAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTAEH
SEQ ID NO: 130	ADHS---LEAQDIMQKMEQCMTLEAILGEVDQFVESDKTYNEAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTAEH
SEQ ID NO: 144	ADHS---LEAQDIMQKMEQCMTLETILGEVDQFVESDKTYNEAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTAEH
SEQ ID NO: 146	ADHS---LEAQDIMQKMEQCMTLETILGEVDQFVESDKTYNEAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTAEH
SEQ ID NO: 4	ADSS---LEAQDIMSRTGEMPTLETILNEVDQFIESEKTYTDAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTSEH
SEQ ID NO: 6	ADSS---LEAQDIMSRTGEMPTLETILNEVDQFIESEKTYADAPHIIDVLPLLCSYLPFWWAQGPNDVPTTGGN-----HVTMVTSEH
SEQ ID NO: 8	ADHS---LEAQDILSRMESTMPTLDNILEVDQFVESDKTHNDAPHIIDVIMPMI CSYLPVWNQGPNDVPTTGGN-----YVTTVTSEH
SEQ ID NO: 10	ADHS---LEAQDIMVKMESCMPNLETILAEDQFVESDKTYNDAPHIIDVLPILLCAYLPFWWSQGPNDVPTTGGN-----HVTMVTADH
SEQ ID NO: 56	ADHS---LEAQDIMVKMESCMPNLETILAEDQFVESDKTYNDAPHIIDVLPILLCAYLPFWWSQGPNDVPTTGGN-----HVTMVTADH
SEQ ID NO: 57	ADTS---LEAQDIMSCKMESCMPNLETILSEVDQFVESEKTYQEAQHIIDVLPILLCAYLPFWWNQGPNDVPTTGGN-----HVTMVTADH
SEQ ID NO: 58	QDQS---VQVQEMLQNLSTHIPLEKLLTDLETVANNTMYSDVPNVYDVLPLMCSYMAHWFVSGPDGKRDKEQDQASVVQTTVSQCDH
SEQ ID NO: 59	ELRG-ATVEGKEELIKLAAGIPTLPAAVTEIDKAMSGAKYDQAPHIEVILPMLCSYLYNWQQGPDNICTRRQGN-----YWTMNSGN
SEQ ID NO: 60	SSRRTALSLPANVEDVCPNIPSELEKLMTEIEELAESGIRYTMYPYMEVLPMLCSYMSRWHEGHPENHPERAEM-----CCTALNSEH
SEQ ID NO: 61	SSRRAALSIPANVEDVCPNIPSELEKLMTEIEELAESGIRYTMYPYMEVLPMLCSYMSRWHEGHPENHPERAEM-----CCTALNSEH
SEQ ID NO: 62	SSRRAALSIPANVEDVCPNIPSELEKLMTEIEELAESGIRYTMYPYMEVLPMLCSYMSRWHEGHPENHPERAEM-----CCTALNSEH

SEQ ID NO: 2	MNQLLKNVLKLIKKNIGNENAPWMTRITATYTTQIIINSSEELLRDSFLPLAERVKRKTDNMFMHKEESLRGFIKSSDDTSQVESQIQEDW
SEQ ID NO: 128	MNQLLKNVLKLIKKNIGNENAPWMTRITATYTTQIIINSSEELLRDSFLPLAERVKRKTDNMFMHKEESLRGFIKSSDDTSQVESQIQEDW
SEQ ID NO: 130	MNQLLKNVLKLIKKNIGNENAPWMTRITATYTTQIIINSSEELLRDSFLPLAERVKRKTDNMFMHKEESLRGFIKSSDDTSQVESQIQEDW
SEQ ID NO: 144	MNQLLKNVLKLIKKNIGNENAPWMTRITATYTTQIIINSSEELLRDSFLPLAERVKRKTDNMFMHKEESLRGFIKSSDDTSQVESQIQEDW
SEQ ID NO: 146	MNQLLKNVLKLIKKNIGNENAPWMTRITATYTTQIIINSSEELLRDSFLPLAERVKRKTDNMFMHKEESLRGFIKSSDDTSQVESQIQEDW
SEQ ID NO: 4	MNCLLKNVLKLIKKNIGNDNAPWMTQIAAYTTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSDDTSQIEAQIQEDW
SEQ ID NO: 6	MNCLLKNVLKLIKKNIGNDNAPWMTQIAAYTTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSDDTSQIEAQIQEDW
SEQ ID NO: 8	MNQLLKNVLKMIKKNIGNESAPWMTRITATYTTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSDDTSQIEAQIQEDW
SEQ ID NO: 10	MNPLLRNVLMKIKKNIGNDNAPWMTRITATYTTQIIINTSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSDDTSQIEAQIQEDW
SEQ ID NO: 56	MNPLLRNVLMKIKKNIGNDNAPWMTRITATYTTQIIINTSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSDDTSQIEAQIQEDW
SEQ ID NO: 57	MNHLKKNVLKMIKKNIGNANAPWMTRITATYTTQIIINSSEELLKDVFLPLAERVKKRCDMSFHKESLRGFIKSSDDTSQIEAQIQEDW
SEQ ID NO: 58	INRIFNALLKMIRNVHGIENAPWLCRVNFFAVQIIQNVTSDPVREFFVLPVIAERLRMSEKAYKEEHHMTRHPD---D--ADEGTVAEEN
SEQ ID NO: 59	LNNTLGNVLTLVKNLGNSENAPWMSRIAATAKPIINDAQPELLKTHFVPIEKLERTSKVFKAEEDLKKEYPMGQGEETEETEFALIEDY
SEQ ID NO: 60	MNTLLGNILKIIYNNLGNIDEGAWMKRLAVFSQPIINKVKPQLLKTHFVPIEKLERTSKVFKAEEDLKKEYPMGQGEETEETEFALIEDY
SEQ ID NO: 61	MNTLLGNILKIIYNNLGNIDEGAWMKRLAVFSQPIINKVKPQLLKTHFVPIEKLERTSKVFKAEEDLKKEYPMGQGEETEETEFALIEDY
SEQ ID NO: 62	MNTLLGNILKIIYNNLGNIDEGAWMKRLAVFSQPIINKVKPQLLKTHFVPIEKLERTSKVFKAEEDLKKEYPMGQGEETEETEFALIEDY

**FIGURE 1V**

SEQ ID NO: 2	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRV---TAVTDGT
SEQ ID NO: 128	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRV---TAVTDGT
SEQ ID NO: 130	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRV---TAVTDGT
SEQ ID NO: 144	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRV---TAVTDGT
SEQ ID NO: 146	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRV---TAVTDGT
SEQ ID NO: 4	QLVVDIYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---AVISETS
SEQ ID NO: 6	QLVVDIYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---AVISETS
SEQ ID NO: 8	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---AVVSDSA
SEQ ID NO: 10	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---SAISEGA
SEQ ID NO: 56	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---SAISEGA
SEQ ID NO: 57	QLLVVDIYSFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---AAVSGDM
SEQ ID NO: 58	ARLVDTYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---KAA
SEQ ID NO: 59	HLIIRDLIYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---KMSKAA
SEQ ID NO: 60	TTLARDLYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---KMSKAA
SEQ ID NO: 61	TTLARDLYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---KMSKAA
SEQ ID NO: 62	TTLARDLYAFYPLLIKYVDLQQRNHWLRNNVPEAEELYNHVHVAEIFNIWSKSYFLKEEQNFISANEIDNMVLIMPTATRRS---KMSKAA
SEQ ID NO: 2	PQGGG---KKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLKVGTLKMSQEQDVAEFAKTQTLTLPDKIDPA
SEQ ID NO: 128	PQGGG---KKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MSEQDVAEFAKTQTLTLPDKIDPA
SEQ ID NO: 130	PQGGG---KKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLKVGTLKMSQEQDVAEFAKTQTLTLPDKIDPA
SEQ ID NO: 144	PQGGG---KKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLKVGTLKMSQEQDVAEFAKTQTLTLPDKIDPA
SEQ ID NO: 146	PQGGG---KKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MSEQDVAEFAKTQTLTLPDKIDPA
SEQ ID NO: 4	LG-GSTGKKKKKXRDKKRDKDKEIQAASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MPDYDVIQFVKIQLTLPDKLDPA
SEQ ID NO: 6	LG-GSSGKKKKKXRDKKRDKDKEIQAASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MPDYDVIQFVKIQLTLPDKLDPA
SEQ ID NO: 8	APPGSGKKKKKXRDKKRDKDKEIQAASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MODYEIVFAKIQLTLPDKLDPG
SEQ ID NO: 10	PAVGKVKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MPEYDVIQFVKIQLTLPDKLDPS
SEQ ID NO: 56	PAVGKVKKKKXRDKKRDKDKEVQASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MPEYDVIQFVKIQLTLPDKLDPS
SEQ ID NO: 57	PASGGVKKKKXRDKKRDKDKEIQAASLMVACLKRLLPVGLNLFAGREQELVQHCKDRFLK---MPEYDVIQFVKIQLTLPDKLDPA
SEQ ID NO: 58	IAERK---KKRR---E-GQIKKDKHAASIVTACLKRLLPVGLNLFAGREQELVQHCKDRFLK---ETDKEVRDYLLQQLHHEKEK-V
SEQ ID NO: 59	SLPGEK-PKLQSTAPKRPDQHGSPSLIQAALKRLLPVGLNLFAGREQELVQHCKDRFLK---DTEEEVRDIIRSNHILQGGKLE-D
SEQ ID NO: 60	ISDQER-KKMK-----RKGDYSMTQSLIQAALKRLLPVGLNLFAGREQELVQHCKDRFLK---DTEEEVRDIIRSNHILQGGKLE-D
SEQ ID NO: 61	VSDQER-KKMK-----RKGDYSMTQSLIQAALKRLLPVGLNLFAGREQELVQHCKDRFLK---DTEEEVRDIIRSNHILQGGKLE-D
SEQ ID NO: 62	VSDQER-KKMK-----RKGDYSMTQSLIQAALKRLLPVGLNLFAGREQELVQHCKDRFLK---DTEEEVRDIIRSNHILQGGKLE-D



SEQ	ID NO: 2	DEMSWQHLYSLGSKSK-	-SNITVETA-	-ENKAKIIIDTTVERIV
SEQ	ID NO: 128	DEMSWQHLYSLGSKSK-	-SNITVETA-	-ENKAKIIIDTTVERIV
SEQ	ID NO: 130	DEMSWQHLYSLGSKSK-	-SNITVETA-	-ENKAKIIIDTTVERIV
SEQ	ID NO: 144	DEMSWQHLYSLGSKSK-	-SNITVETA-	-ENKAKIIIDTTVERIV
SEQ	ID NO: 146	DEMSWQHLYSLGSKSK-	-SNITVETA-	-ENKAKIIIDTTVERIV
SEQ	ID NO: 4	DEMSWQHLYSLGSKKG-	-TPEIK-	-PQQVDEVADRIV
SEQ	ID NO: 6	DEMSWQHLYSLGSKKG-	-NTEIK-	-PQQVDEVADRIV
SEQ	ID NO: 8	DEMSWQHLYSLTGKKE-	-ITEGGK-	-PEQIDAVVDRIV
SEQ	ID NO: 10	DEMSWQHLYSLGKTKEEP-	-VDEQALEKANVNS-	-NEKGDKTKQTETVDRIV
SEQ	ID NO: 56	DEMSWQHLYSLGKTKEEP-	-VDEQALEKANVNS-	-NEKGDKTKQTETVDRIV
SEQ	ID NO: 57	DEMSWQHLYSLGKKQE-	-IVQDTLEKS-	-DKKPENKIEDTVERIV
SEQ	ID NO: 58	DKNAWQLUSLYRKIGKSQMR		-GKDMSQDAVIEKIF
SEQ	ID NO: 59	EETARLTALGHAQSSISPKPSVSFPSSPPSSSSSSSSSTTSSTSSSSSSSSSPSSSSVPDPQDSTKPSRIRTRRQ		
SEQ	ID NO: 60	PAIRWQWALYKDFPNRT-		-EDPSDPERITVERVL
SEQ	ID NO: 61	PAIRWQWALYKDLPNRT-		-EETSDDPEKTVERVL
SEQ	ID NO: 62	PAIRWQWALYKDLPNRT-		-DDTSDPEKTVERVL

SEQ	ID	NO: 2	AMSK	-----	VLFGHLMI	-----	DHPQMSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 128	AMSK	-----	VLFGHLMI	-----	DHPQMSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 130	AMSK	-----	VLFGHLMI	-----	DHPQMSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 144	AMSK	-----	VLFGHLMI	-----	DHPQMSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 146	AMSK	-----	VLFGHLMI	-----	DHPQMSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 4	AMAK	-----	VLYGLHMI	-----	DHPLOSKAIYRSVSVSTQKRRAVI
SEQ	ID	NO: 6	AMAK	-----	VLYGLHMI	-----	DHPLOSKATYRSVSVSTQKRRAVI
SEQ	ID	NO: 8	AMAK	-----	VLYGLHMI	-----	DHPLOSKASYRSVSVSTQKRRAVI
SEQ	ID	NO: 10	AMAK	-----	VLYGLHMI	-----	DHPQQQSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 56	AMAK	-----	VLYGLHMI	-----	DHPQQQSKNVYRSVSVSIQKRRAVI
SEQ	ID	NO: 57	AMAK	-----	VLYGLHM	-----	-----
SEQ	ID	NO: 58	NMGQ	-----	VSAILHT	-----	MTSRMEKEDIWKVLTQKRMAI
SEQ	ID	NO: 59	SIAAQWTAASRV	TGAHITQSDSKGWQRHL	YNMMAASKLVQVVELTKDKVIERIMNMAQVLNRLHQMEHPMSKKNAWRRRLMSAQKRRAIM		
SEQ	ID	NO: 60	GIAN	-----	VLPHLEQK-SKYTGRGYFS	-----	LVEHPQRSKKA VWHKLLSKQKRRAV
SEQ	ID	NO: 61	DIAN	-----	VLPHLEQK-SKFIGRRYIN	-----	LVEHPQRSKKA VWHKLLSKQKRRAV
SEQ	ID	NO: 62	DIAN	-----	VLPHLEQK-SKRVGRRHYC	-----	LVEHPQRSKKA VWHKLLSKQKRRAV

**FIGURE 1X**

SEQ ID NO: 2	ACFRQTSLSLPRHRACNIFARTYYELWLEENI -RQEVMIEDLTQSFEDAE-----LKKSDVVEEGEKPDPPLTQLVTTT
SEQ ID NO: 128	ACFRQTSLSLPRHRACNIFARTYYELWLEENI -GQEVMIEDLTQSFEDAE-----LKKSDVVEEGEKPDPPLTQLVTTT
SEQ ID NO: 130	ACFRQTSLSLPRHRACNIFARTYYELWLEENI -GQEVMIEDLTQSFEDAE-----LKKSDVVEEGEKPDPPLTQLVTTT
SEQ ID NO: 144	ACFRQTSLSLPRHRACNIFARTYYELWLEENI -GQEVMIEDLTQSFEDAE-----LKKSDVVEEGEKPDPPLTQLVTTT
SEQ ID NO: 146	ACFRQTSLSLPRHRACNIFARTYYELWLEENI -GQEVMIEDLTQSFEDAE-----LKKSDVVEEGEKPDPPLTQLVTTT
SEQ ID NO: 4	ACFRQLSLHALTPHRACNIFVRSFYELWLQDENI -GQEVMIEDLTQSFEEAE-----LKKRDKEEEEGMADPLNQMVTTT
SEQ ID NO: 6	ACFRQLSLHALTPHRACNIFVRSFYELWLQDENI -GQEVMIEDLTQSFEEAE-----LKKRDKEEEEGMADPLNQMVTTT
SEQ ID NO: 8	ACFRQLSLHALTPHRACNIFVRSFYELWLQDENI -GQEVMIEDLTQSFEEAE-----LKKRDKEEEEGMADPLNQMVTTT
SEQ ID NO: 10	ACFRQTSLSLPRHRACNIFARSYYEQLWTEENV -GTEVLIEDLTQSFEDAE-----LKKTDEEVDEGKSDPLTQLVTTT
SEQ ID NO: 56	ACFRQTSLSLPRHRACNIFARSYYEQLWTEENV -GQEVMIEDLTQSFEDSE-----KSKKEGEETDSKPDPPLTQLVTTT
SEQ ID NO: 57	ACFRQTSLSLPRHRACNIFARSYYEQLWTEENV -GQEVMIEDLTQSFEDSE-----KSKKEGEETDSKPDPPLTQLVTTT
SEQ ID NO: 58	SLITASHLYKTELHRGINFFLPAFSRLWMEEDA -GQDQLIADICSGVEEEEGPRIEIIIMEEGVPIVASSEDTKEKETNPDPPLKQLIRCF
SEQ ID NO: 59	ACFRMIPHLPRHRACNIFFLKAYKERWLSNEES -AQHLLIDDLTKCSSE-----ELQEFEPENVKDPPLYQLISTF
SEQ ID NO: 60	ACFRMAPLYNLPRHRACNIFLQGYEKSWTETEEHYFEDKLIEDLAKPGAE-----LPEEDEAMKRVDPPLHQLLILF
SEQ ID NO: 61	ACFRMAPLYNLPRHRACNIFLQGYEKSWTETEEHYFEDKLIEDLAKPGAE-----PPEEDEVTKRVDPLHQLLILF
SEQ ID NO: 62	ACFRMAPLYNLPRHRACNIFLQGYEKSWTETEEHYFEDKLIEDLAKPGAE-----PPEEDEGTRKRVDPPLHQLLILF
SEQ ID NO: 2	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGGEEEEEGGGEAEAEDEGRASIIHEQEMEKQKLLFHQARPADRGVAEMVLLHIS
SEQ ID NO: 128	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGGEEEEEGGGEAEAEDEGRASIIHEQEMEKQKLLFHQARLADRGVAEMVLLHIS
SEQ ID NO: 130	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGGEEEEEGGGEAEAEDEGRASIIHEQEMEKQKLLFHQARLADRGVAEMVLLHIS
SEQ ID NO: 144	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGGEEEEEGGGEAEAEDEGRASIIHEQEMEKQKLLFHQARLADRGVAEMVLLHIS
SEQ ID NO: 146	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGGEEEEEGGGEAEAEDEGRASIIHEQEMEKQKLLFHQARLADRGVAEMVLLHIS
SEQ ID NO: 4	CRGAMTERSGA--LQEDPLYMSYADILAKSCGEEEEEGGNNEE--GSGNGDEEGGASIIHEQEMEKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 6	CRGAMTERSGA--LQEDPLYMSYADILAKSCGEEEEEGGNNEE--GSGNGDEEGGASIIHEQEMEKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 8	CRGAMTERSGA--LQEDPLYMSYAEIAAKSCGEEEEEGGDEE--GGEG--EEQGASIIHEQEMEKQKLLFHQSRLANRGVAEMVLLHIS
SEQ ID NO: 10	CRGAMTERSGA--LQEDLLYMSYAIKAKSTGKEEEEGGDEE--GGEGGEEAEG-TSIIHEQEMEKQKLLFHQARLSNRGVAEMVLLHIS
SEQ ID NO: 56	CRGAMTERSGA--LQEDLLYMSYAIKAKSTGKEEEEGGDEE--GGEGGEEGEG-TSIIHEQEMEKQKLLFHQARLSNRGVAEMVLLHIS
SEQ ID NO: 57	-----E-----QEMEKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 58	QRAATSEETAASAIHEDSLYIRFADVMAKSIHIEEEDGED-----GEEGEIDQAAKEEQSQALRGEQAVLASRGAAIMCLMYLS
SEQ ID NO: 59	SRAFGLQQ-DM--LEEDPLYLSYAAIMSTSCGGEDDDDDDD--G-----GDENGTSFQEQEMEKQKLLSEQARLAERGAEMVLLIS
SEQ ID NO: 60	SRTALTEK-CK--LEEDFLYMAVADIMAKSCHDEEDDD-----GEEEVKSFEKEKEMEKQKLLYQQARLHDRGAEMVLQTTIS
SEQ ID NO: 61	SRTALTEK-CK--LEEDFLYMAVADIMAKSCHDEEDDD-----GEEEVKSFEKEKEMEKQKLLYQQARLHDRGAEMVLQTTIS
SEQ ID NO: 62	SRTALTEK-CK--LEEDFLYMAVADIMAKSCHDEEDDD-----GEEEVKSFEKEKEMEKQKLLYQQARLHDRGAEMVLQTTIS

**FIGURE 1Y**

SEQ ID NO: 2	ASKGLPSEVMVMKTLQLGISILRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 128	ASKGLPSEVMVMKTLQLGISILRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 130	ASKGLPSEVMVMKTLQLGISILRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 144	ASKGLPSEVMVMKTLQLGISILRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 146	ASKGLPSEVMVMKTLQLGISILRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 4	ACKGIPSEVMVMKTLQLGIAVLRGNNLEIQMGLNHLKDKDVGFFTSVAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 6	ACKGIPSEVMVMKTLQLGIAVLRGNNLEIQMGLNHLKDKDVGFFTSVAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 8	ACNGVPSEVMVMKTLQLGISILRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGSDGAA-----GEKD
SEQ ID NO: 10	ASKGIPSEVMVMKTLQLGIAVLRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 56	ASKGIPSEVMVMKTLQLGIAVLRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 57	ASKGVPSEVMVMKTLQLGIAVLRGNNIDIQMGLNHLKDKDVGFFTSIAGLMNSCSVLDLAFERNTKAEGLVGSDGAA-----GEKD
SEQ ID NO: 58	ASGGEPSEVMVMKTLQLGIAVLRGNNIDIQMGLNHLKDKDVGFFTSMAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----DNQE
SEQ ID NO: 59	ASKGEPSEVMVMKTLQLGIAVLRGNNIDIQMGLNHLKDKDVGFFTSVAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----DNQE
SEQ ID NO: 60	ASKGETGPMVAATLKLGLAIIILNGNSTVQQKMLDYLKDKDVGFFTSLAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKN
SEQ ID NO: 61	ASKGETGPMVAATLKLGLAIIILNGNSTVQQKMLDYLKDKDVGFFTSLAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKN
SEQ ID NO: 62	ASKGETGPMVAATLKLGLAIIILNGNSTVQQKMLDYLKDKDVGFFTSLAGLMNSCSVLDLAFERNTKAEGLVGSEGAA-----GEKN

SEQ ID NO: 2	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 128	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 130	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 144	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 146	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 4	NMHDAEFTCTLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 6	NMHDAEFTCTLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 8	NMHDAEFTCTLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 10	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 56	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 57	NMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 58	NLNDADFTCSLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 59	AMHDAEFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 60	VLQDDEFTCDLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 61	VLQDDEFTCDLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 62	VLQDDEFTCDLFRFIQLTCEGHNLDWQNYLRTQAGNTTTTNNVICTVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN

**FIGURE 1Z**

SEQ ID NO: 2	TLTEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNPQKDMITMMLSMLEGNVVGTTIVKQWVDTLVGSAS
SEQ ID NO: 128	TLTEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMIPMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 130	TLTEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 144	TLTEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 146	TLTEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 4	TLSEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 6	TLSEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 8	TLSEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 10	TLTEVIQGPCTLNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 56	TLTEVIQGPCTLNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVESAS
SEQ ID NO: 57	TLTEVIQGPCTQNQQALAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDALVESQP
SEQ ID NO: 58	TLTESIQGPCVGNQMTLANSRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDTLVSSS
SEQ ID NO: 59	SLTEYIQGPCSGNQLAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDMLVSSN
SEQ ID NO: 60	TLTEYIQGPCTGNQQSLAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDMLVSSN
SEQ ID NO: 61	TLTEYIQGPCTGNQQSLAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDMLVSSN
SEQ ID NO: 62	TLTEYIQGPCTGNQQSLAHSLRLWDVAVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLQKDMITMMLSMLEGNVVGTTIGKQWVDMLVSSN
SEQ ID NO: 2	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 128	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 130	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 144	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 146	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 4	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 6	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 8	NVELILKYFDMFLKLKDLTSSASFQEI DANNDGWVLPKDFKEKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 10	NVELILKYFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 56	NVELILKYFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 57	NVELILKYFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 58	SVEKILKFSDFMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 59	NLEMILKFFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 60	NVEMILKFFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 61	NVEMILKFFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL
SEQ ID NO: 62	NVEMILKFFDMFLKLADLIESPSFHEVDMKNEGWVTPKDFREKMEQKSYTPEEIEFLLACCETNHDGKLDYIGFCDRFHEPAKEIGFNL

**FIGURE 1AA**

SEQ ID NO:2 AVLLTNLSEHMPNEPRLARFLETAGSVLDYFEPFLGRIEIMGSKRIERVYFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDREKLE  
SEQ ID NO:128 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGSKRIERVYFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:130 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGSKRIERVYFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:144 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGSKRIERVYFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:146 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGSKRIERVYFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:4 AVLLTNLSEHMPNEPRLTRFLETASSVLNYFQPFLLGRIEILGSKRIERVYFEIKESNIEQWLKPQIRESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:6 AVLLTNLSEHMPNEPRLTRFLETASSVLNYFQPFLLGRIEILGSKRIERVYFEIKESNIEQWLKPQIRESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:8 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGSKRIERVYFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:10 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEILGSKRIERVYFEIKDSNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:56 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEILGSKRIERVYFEIKDSNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:57 AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEILGSKRIERVYFEIKDSNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE  
SEQ ID NO:58 AVLLVNLKEHTNDPRLEKIIIEKAQTLLEYFDPFLGRIEIMGSSKRVEKIYFEIQESWLEQWKGQQIRDSKNSFLNVLQDDGGDQKLE  
SEQ ID NO:59 AVLLTNLNDHMPGERRLERFLAQESLLTYFEPYLGRIEIMGSSRGIERVYFKITESHKAQWEKPOIKESKQQLHEVVNE-GGEKEKLE  
SEQ ID NO:60 AVLLTNLSEHMPNDTRLQTFLEAESVLNYFQPFLLGRIEIMGSAKRIERVYFEISESSRTQWEKQVKESKRQFIFDVVNE-GGEKEKME  
SEQ ID NO:61 AVLLTNLSEHMPNETRLQTFLEAESVLNYFQPFLLGRIEIMGSAKRIERVYFEISESSRTQWEKQVKESKRQFIFDVVNE-GGEKEKME  
SEQ ID NO:62 AVLLTNLSEHMPNDTRLQTFLEAESVLNYFQPFLLGRIEIMGSAKRIERVYFEISESSRTQWEKQVKESKRQFIFDVVNE-GGEKEKME  
  
SEQ ID NO:2 AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDGDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP  
SEQ ID NO:128 AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP  
SEQ ID NO:130 AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP  
SEQ ID NO:144 AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP  
SEQ ID NO:146 AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP  
SEQ ID NO:4 AFVNFCEDAIFEMTHASGLMAVDDGSGIGGGKSRKTSYT-YLADDEENKTAKDPIRRGIQAIKYGFHLLFFVLSPNTIKNKINEIQOMSV  
SEQ ID NO:6 AFVNFCEDAIFEMQHASGLMAVDDGSGIGGGKSRKTAYI-YLADDEENKTAKDPIRRGIQAIKYGFHLLFFVLSPNTIKNKINEIQOMSF  
SEQ ID NO:8 AFVNFCEDAIFEMTHASGLMSVDDSGGGGK---AAYT-YTSEDEEKNAKDPIRRITQAFKDAIYFILTMLSPTSNIKINEMQQMSV  
SEQ ID NO:10 AFVNFCEDAIFEMTHASGLMATDDG---CGNVKRD TAYSSMEEEEERAAADPIRRITITAVKEGLKFGVHMLSPANIKHQIGVMQTKSI  
SEQ ID NO:56 AFVNFCEDAIFEMTHASGLMATDDG---CGNVKRD TAYSSMEEEEERAAADPIRRITITAVKEGLKFGVHMLSPANIKHQIGVMQTKSI  
SEQ ID NO:57 AFVNFCEDAIFEMTHASGLMASDDD---GGTVRRDQFT-YTSEEEEEERAAADPIKRTTQAVKDGLSYMYMISPSNIKHQITVLQSKSF  
SEQ ID NO:58 AFINFCEDTIFEMQHAAAISSGDS---TKMERAIKQRDYFLOQTSADHISETFSGVNYGISAASALSPQNIQTTRNVSSSVRQMSW  
SEQ ID NO:59 DFVNFCEDTIFEMQHATSISDTGESL-PEVFMSLTLFGASRDNNWLVLVRGMRPSPNICRLMGDFFSSSQYNIQIRSLSLFRLFFGVI  
SEQ ID NO:60 LFVNFCEDTIFEMQLAAQISESDLINE-PLANKEESEKERPEEQAPRMGFFSLLTIQSALFALRYNVLTLVRMLSLKSLKKQMKMKMTV  
SEQ ID NO:61 LFVNFCEDTIFEMQLAAQISESDLINE-PSANKEESEKERPEEQPKMGFFSVLTVRSALFALRYNLTLMRMLSLKSLKKQMKMKMTV  
SEQ ID NO:62 LFVNFCEDTIFEMQLAAQISESDLINE-RSANKEESEKERPEEQPRMAFFSILTVRSALFALRYNLTLMRMLSLKSLKKQMKMKMTV

**FIGURE 1BB**

SEQ ID NO: 2	AELAVGFFKMFYFYLYLGYGVLVVVVRYIFGVLLGLMRGPQTDEPPPEPEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO: 128	AELAVGFFKMFYFYLYLGYGVLVVVVRYIFGVLLGLMRGPQTDEPPPEPEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO: 130	AELAVGFFKMFYFYLYLGYGVLVVVVRYIFGVLLGLMRGPQTDEPPPEPEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO: 144	AELAVGFFKMFYFYLYLGYGVLVVVVRYIFGVLLGLMRGPQTDEPPPEPEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO: 146	AELAVGFFKMFYFYLYLGYGVLVVVVRYIFGVLLGLMRGPQTDEPPPEPEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO: 4	IELITFFKLWFYLYFYTGYSYGVVLYRYSRILMQLSGTQSEETTVEVEEK-----SGSFR-----MLPALPSS
SEQ ID NO: 6	VELITFFKLWFYLYFYTGYSYGVVLYRYSRILMQLSGTQSEETTVEVEEK-----AGSFR-----MLPALPSS
SEQ ID NO: 8	PELVVGFKKIFFYMFYYSYGVSVVLYRIFGRILMTLMRGPTQTEEPVAEVKKEDEI-----MGPIR-----ALPPPPPD
SEQ ID NO: 10	PELIVGFFKIIIFYFYTGVAHFVVRVYIFGILLNLMRGPAEQ-----EPEPVVEET-----FGR-----ALPPLSLE
SEQ ID NO: 56	PELIVGFFKIIIFYFYTGVAHFVVRVYIFGILLNLMRGPAEQ-----EPEPVVEET-----FGR-----ALPPLSLE
SEQ ID NO: 57	PEIIVGFFKIMIFYAFYYSYGVSVVLYRIFGILLNLMRGPAEQ-----EPEPVVEET-----SLR-----ALPPLPLE
SEQ ID NO: 58	TQLLVAVILFIRAGLAIGWAGYLLMTIFRFGYFLTTSSEEEAARQEKAQMN-----N-----EHPSTN-----PPIIQE
SEQ ID NO: 59	KLIFLGVFKLFKFAFVIVGKLIG--LLVGTRILEDAREITGSIKSHLVPRVARQT-----SSIIIVPGYGMPSARRNTSFWQYLTQYFT
SEQ ID NO: 60	KOMVLAFSSYSVFWTLHFVASVCRGFFRIVSSLLGGLVEGAKKIKVAELLANMPDPTQDEVRGDEEGGERK--PLESALPSEDLT
SEQ ID NO: 61	KOMVTAFSSYSIFMTLLHFVASVFRGFFRIVCSLLGGLVEGAKKIKVAELLANMPDPTQDEVRGDEEGGERK--PMETTLPSEDLT
SEQ ID NO: 62	KDMVTAFSSYSIFMTLLHFVASVFRGFFRIICSLLLGGLVEGAKKIKVAELLANMPDPTQDEVRGDEEGGERK--PLEAALPSEDLT
SEQ ID NO: 2	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPDESADHTEE-----QRPPSLIDLGLGGEQAKK
SEQ ID NO: 128	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPDESADHTEE-----QRPPSLIDLGLGGEQAKK
SEQ ID NO: 130	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPDESADHTEE-----QRPPSLIDLGLGGEQAKK
SEQ ID NO: 144	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPDESADHTEE-----QRPPSLIDLGLGGEQAKK
SEQ ID NO: 146	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPDESADHTEE-----QRPPSLIDLGLGGEQAKK
SEQ ID NO: 4	GIDETPSTLTDSSNMKNKNSGL-----DSKHLKSTTGD--DKDETSANHEKEDGVDG-----SELQASFVDLLLVGESARK
SEQ ID NO: 6	GVDEPPSTLIDSSNMKNKNSGAP-----DSKHVKSTTVGD--DKDETSTENHEKEDGVKSE-----DNSELQASFVDLLLVGESARK
SEQ ID NO: 8	NKEASSSSAKDDSGQAKPADG-----GATLALTASGE--EHKEGGATEEGAEDGAKPEG--AETTEGTTMTLADLLGLGEAARK
SEQ ID NO: 10	EPGP--TVQAFGLDINKEENG--YKVVVHESPAN--SSMEEGGESSPEDGAAAAGELVEGEHPHQGPISIVDGLLGEAAKK
SEQ ID NO: 56	EPGP--TVQAFGLDINKEENG--YKVVVHESPAN--SSMEEGGESSPEDGAAAAGELVEGEHPHQGPISIVDGLLGEAAKK
SEQ ID NO: 57	EPGP--TVQAFGLDISKEENGQ-----YRMAPHESPALSPSSSIETGESSEPDGAAELTG--EGVPPGEQMTLVLDLGLGEAAKR
SEQ ID NO: 58	FHSHVGVTAFAFGVMNADHLN-----VNSLPDFVPPERPETPETVILEEKPLN-----QETSPTSPT
SEQ ID NO: 59	NVNSMDTVSAFGLDIFLKGKGGGGGAGGTDQYKLRMRKRRLPTSSSFDDEEMSDMNMPHTPSEASD--SSFDSGAMAKNDFSMMPD
SEQ ID NO: 60	DLKELTEESDLSDFGLDLKREGG-----QYKLIHPNPNAGLSDLMTNPNVPVPEVQKFOEQAKKEE-----KEEKEETKSEPEKAE
SEQ ID NO: 61	DLKELTEESDLSDFGLDLKREGG-----QYKLIHPNPNAGLSDLMTNPNVPVPEVQKFOEQAKKEE-----KEEKEETKSEPEKAE
SEQ ID NO: 62	DLKELTEESDLSDFGLDLKREGG-----QYKLIHPNPNAGLSDLMTNPNVPVPEVQKFOEQAKKEE-----KEEKEETKSEPEKAE

**FIGURE 1CC**

SEQ ID NO:2	QAQERMEAAQAQAAMSAIAEAEKKAQVG-PAPSALSQVDLSQYTRRAVSFLARFYNLKYVALVLAFCINFVLLFYKVSTLDDGEGE--
SEQ ID NO:128	QAQERMEAAQAQAAMSAIAEAEKKAQVG-PAPSALSQVDLSQYTRRAVSFLARFYNLKYVALVLAFCINFVLLFYKVSTLDDGEGE--
SEQ ID NO:130	QAQERMEAAQAQAAMSAIAEAEKKAQVG-PAPSALSQVDLSQYTRRAVSFLARFYNLKYVALVLAFCINFVLLFYKVSTLDDGEGE--
SEQ ID NO:144	QAQERMEAAQAQAAMSAIAEAEKKAQVG-PAPSALSQVDLSQYTRRAVSFLARFYNLKYVALVLAFCINFVLLFYKVSTLDDGEGE--
SEQ ID NO:146	QAQERMEAAQAQAAMSAIAEAEKKAQVG-PAPSALSQVDLSQYTRRAVSFLARFYNLKYVALVLAFCINFVLLFYKVSTLDDGEGE--
SEQ ID NO:4	DSIAGPEVLAQQQAAMAAVEAEIKQNSV-ENPSAFSTIDINAYTHRALSFARFYNLKYVALVLAFCINFVLLFYKVTTLADLSDDG
SEQ ID NO:6	DSIAGPEVLAQQQAAMAAVEAEIKQNSV-ENPSAFSTIDINAYTHRALSFARFYNLKYVALVLAFCINFVLLFYKVTTLADLSDDG
SEQ ID NO:8	EAVARAEVAAEQQAAMAAVEAEAEKHEVVS-E-PSAFSQIDFNRYTHRAVSFLARFYNLKYVALVLAFCINFVLLFYKVTSFTEEADS--
SEQ ID NO:10	AAQERQEAQAQAAMASIAEAEAKKSSAPQETPAVHQIDFSQYTHRAVSFLARFYNLKYVALVLAFCINFVLLFYKVTSFTEEADS--
SEQ ID NO:56	AAQERQEAQAQAAMASIAEAEAKKSSAPQETPAVHQIDFSQYTHRAVSFLARFYNLKYVALVLAFCINFVLLFYKVTSFTEEADS--
SEQ ID NO:57	AAQERTEAQAQAATLASIAEAEKKAETKEPAAVHQIDFSQYTHRAVSFLARFYNLKYVALVLAFCINFVLLFYKVTTLGDDEDEGEG
SEQ ID NO:58	SPASKAPSIYESIGAPQMVLQSEADFPQQGYEPKIAESNSTKSRGSIINMLARNFYKTIETILYLAFFINVILLFHRVD-----
SEQ ID NO:59	MSAGRRDSTVFP-SLFLATEMPSTQVKEEEEEPEVPEPQMNVRVKQTVSVLSFARNFYNIKYVALALVFCINILLFFKVSYLTAELLEE--
SEQ ID NO:60	GEDGEKEEKAKDEKSKQLRQLHTRHYCEPEVPEPESAFWKIIAYQQKLLNYFARNFYNNRMLALFVAFAINFILLFYKVS--TSSVVE--
SEQ ID NO:61	GEDGEKEEKVKEDKGKQLRQLHTRHYCEPEVPEPESAFWKIIAYQQKLLNYFARNFYNNRMLALFVAFAINFILLFYKVS--TSSVVE--
SEQ ID NO:62	GEDGEKEEKAKEDKGKQLRQLHTRHYCEPEVPEPESAFWKIIAYQQKLLNYFARNFYNNRMLALFVAFAINFILLFYKVS--TSSVVE--
SEQ ID NO:2	-----GSLGDIAGGGSGGAGS-----GSGDGSGETGE--DDDALEVVHIDEDFFMEHVIKMAAVLHSTIVSLAILIGYYHLKV
SEQ ID NO:128	-----GSLGDIAGGGSGGAGS-----GSGDGSGETGE--DDDALEVVHIDEDFFMEHVIKMAAVLHSTIVSLAILIGYYHLKV
SEQ ID NO:130	-----GSLGDIAGGGSGGAGS-----GSGDGSGETGE--DDDALEVVHIDEDFFMEHVIKMAAVLHSTIVSLAILIGYYHLKV
SEQ ID NO:144	-----GSLGDIAGGGSGGAGS-----GSGDGSGETGE--DDDALEVVHIDEDFFMEHVIKMAAVLHSTIVSLAILIGYYHLKV
SEQ ID NO:146	-----GSLGDIAGGGSGGAGS-----GSGDGSGETGE--DDDALEVVHIDEDFFMEHVIKMAAVLHSTIVSLAILIGYYHLKV
SEQ ID NO:4	-----DVKEFALGSAGISNDDID-----DSNSTEMAD--DDGALELVHVNEDFFYMAHVMRLAALLHSLASLAMLIAYYHLKV
SEQ ID NO:6	-----DSKDFALGSAGISNDDID-----DSNSTEAD--DDGALELVHVNEDFFYMAHVMRLAALLHSLASLAMLIAYYHLKV
SEQ ID NO:8	SGELGGGLAEDLLEELGGSGGEEGGLSG-CISGESGEDSGE--EEDPIELVHVNEDEFFYMAHVMKIAAMLHSLVSLAMLIAYYHLKV
SEQ ID NO:10	-----SAAEELILSGPGGGADITGSGFGGSGDGGSGDGE-MEDEIPELVHVNEDFFMEHVLRIACLHSLVSLAMLIAYYHLKV
SEQ ID NO:56	-----SAAEELILSGSGGGADITGSGFGGSGDGGSGDGE-MEDEIPELVHVNEDFFMEHVLRIACLHSLVSLAMLIAYYHLKV
SEQ ID NO:57	-----GSGESLMGLSGLSGLGILETCSGG-GEKGGSGDGEDEEDPPEKVVHDEDEFFMEHVLRIACLHSLVSLAMLIAYYHLKV
SEQ ID NO:58	-----I SHAENAEAAASEG-----DDEDALESIFITGMQFPYVEYEITGMWLAQILYISVLHSLSTFALLVSFYQLKI
SEQ ID NO:59	-----VDPYHPVEILENATSPNG-----ADMAGDEDR--VDDQIEQILINQQFMVLPVLPVLSILHSLVSLAMLIAYYHLKV
SEQ ID NO:60	-----GKELPTRSSDTAKVTNS-----LDSSPHR-----IIAVHYVLEESSGYMEPTLRILAILHTTISFFCIIGYYCLKV
SEQ ID NO:61	-----GKELPRSTSENAKVTTS-----LDSSSHR-----IIAVHYVLEESSGYMEPTLRILAILHTTISFFCIIGYYCLKV
SEQ ID NO:62	-----GKELPTRSSSENAKVTS-----LDSSSHR-----IIAVHYVLEESSGYMEPTLRILAILHTTISFFCIIGYYCLKV



**FIGURE 1DD**

SEQ ID NO:2	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSPFPVNYWDKFVKKKVRAKYSETYDFDSDISNMLGMEKTSFSAQ
SEQ ID NO:128	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSPFPVNYWDKFVKKKVRAKYSETYDFDSDISNMLGMEKTSFSAQ
SEQ ID NO:130	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSPFPVNYWDKFVKKKVRAKYSETYDFDSDISNMLGMEKTSFSAQ
SEQ ID NO:144	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSPFPVNYWDKFVKKKVRAKYSETYDFDSDISNMLGMEKTSFSAQ
SEQ ID NO:146	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSPFPVNYWDKFVKKKVRAKYSETYDFDSDISNMLGMEKTSFSAQ
SEQ ID NO:4	PLAIFKREKEIARLEFDGLYIVEQPED-----DDIKSHWDKLVISAKSPFPVNYWDKFAKKVRQKQYSETYDFDSDISNMLGMEKTSFSTQ
SEQ ID NO:6	PLAIFKREKEIARLEFDGLYIVEQPED-----DDIKSHWDKLVISAKSPFPVNYWDKFAKKVRQKQYSETYDFDSDISNMLGMEKTSFSTQ
SEQ ID NO:8	PLAIFKREKEIARLEFDGLYIAEQPED-----DDIKSHWDKLVISAKSPFPVNYWDKFAKKVRQKQYSETYDFDSDISNMLGMEKTSFSAQ
SEQ ID NO:10	PLAIFKREKEIARLEFDGLYIAEQPED-----DDFKSHWDKLVISAKSPFPVNYWDKFVKKKVRQKQYSETYDFDSDISNMLGMEKTSFAAQ
SEQ ID NO:56	PLAIFKREKEIARLEFDGLYIAEQPED-----DDFKSHWDKLVISAKSPFPVNYWDKFVKKKVRQKQYSETYDFDSDISNMLGMEKTSFAAQ
SEQ ID NO:57	PLAIFKREKEIARLEFDGLYIAEQPED-----DDIKSHWDKLVISAKTPFPVNYWDKFVKKKVRQKQYSETYDFDSDISNMLGMEKTAFAAQ
SEQ ID NO:58	PLITFKREKEIARLMFDGCWITEEDSEELGIVDTFMWYLDRIVVSASKSPFPVNYWDKFVRRKTRSKFDQVDEETLTSILGEEKMS--T
SEQ ID NO:59	PLCLFKREKEIARKLEFDGLYITEQPTR-----DDIKGQWDSLAI STVSFPVNYWDKFVKKKVLKKYEDAVGEDKLCAMLGMEIGENPMA
SEQ ID NO:60	PLVIFKREKEVARKLEFDGLYITEQPS-----DDIKGQWDRLVINTQSPFPVNYWDKFVKKRVMDKYGEFYGRDRISELLGMDKAALDFS
SEQ ID NO:61	PLVIFKREKEVARKLEFDGLYITEQPS-----DDIKGQWDRLVINTQSPFPVNYWDKFVKKRVMDKYGEFYGRDRISELLGMDKAALDFS
SEQ ID NO:62	PLVIFKREKEVARKLEFDGLYITEQPS-----DDIKGQWDRLVINTQSPFPVNYWDKFVKKRVMDKYGEFYGRDRISELLGMDKAALDFS

SEQ ID NO:2	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDNSFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:128	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDNSFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:130	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDNSFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:144	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDNSFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:146	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDNSFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:4	ENEERTG-----LINFVINIDWRYQVWK-AGVTITDNAFLYSLWYFTFSLGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:6	ENEERTG-----LINFVINIDWRYQVWK-AGVTITDNAFLYSLWYFTFSLGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:8	ETEETG-----IINFILNIDWRYQVWK-AGVTITDNAFLYSLWYFISILGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:10	ESEETG-----IFKYIMNIDWRYQVWK-AGVFTDNAFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:56	ESEETG-----IFKYIMNIDWRYQVWK-AGVFTDNAFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:57	EANEGBG-----FFHFITNIDWRYQVWK-AGVTITDNSFLYSLWYFVSFVGMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:58	DS-----S-YDVRYSCLWIGVILTNQOPLRVGYLLCSACGVLSFPFFYAFHLIDVLSFPMLKAILQSVTHNLQQLI
SEQ ID NO:59	GNPTENP--NQGLFSSMLTSLDWKYHIWK-CGVIGTDSNPLYIAWYLLFSLGHINP-FFFAAHLLDIAMGFKTLRTVLQSVTHNGKQLV
SEQ ID NO:60	DAREKKPKKDSSLSAVLNSIDVKYQMWK-LGVVFTDNSFLYIAWYMTMSVLGHYNN-FFFAAHLLDIAMGFKTLRTILSSVTHNGKQLV
SEQ ID NO:61	DAREKKPKKDSSLSAVLNSIDVKYQMWK-LGVVFTDNSFLYIAWYMTMSVLGHYNN-FFFAAHLLDIAMGFKTLRTILSSVTHNGKQLV
SEQ ID NO:62	DAREKKPKKDSSLSAVLNSIDVKYQMWK-LGVVFTDNSFLYIAWYMTMSVLGHYNN-FFFAAHLLDIAMGFKTLRTILSSVTHNGKQLV

**FIGURE 1EE**

SEQ ID NO: 2	LTVMLLTIIIVYITVIAFNFRKFYVQED--DEVNRNCHDMLTCFVNLYKGVRAAGGGIGDELEPPDGGDDSEVYRIIFDTSFFFFIIVI
SEQ ID NO: 128	LTVMLLTIIIVYITVIAFNFRKFYVQED--DEVNRNCHDMLTCFVNLYKGVRAAGGGIGDELEPPDGGDDSEVYRIIFDTSFFFFIIVI
SEQ ID NO: 130	LTVMLLTIIIVYITVIAFNFRKFYVQED--DEVNRNCHDMLTCFVNLYKGVRAAGGGIGDELEPPDGGDDSEVYRIIFDTSFFFFIIVI
SEQ ID NO: 144	LTVMLLTIIIVYITVIAFNFRKFYVQED--DEVNRNCHDMLTCFVNLYKGVRAAGGGIGDELEPPDGGDDSEVYRIIFDTSFFFFIIVI
SEQ ID NO: 146	LTVMLLTIIIVYITVIAFNFRKFYVQED--DEVNRNCHDMLTCFVNLYKGVRAAGGGIGDELEPPDGGDDSEVYRIIFDTSFFFFIIVI
SEQ ID NO: 4	LTVLLLTIIIVYITVIAFNFRKFYVQED--DEVDKKCHDMLTCFVPHLYKGVRAAGGGIGDEIGSPDGGDDYEVYRIIMFDITFFFFFVII
SEQ ID NO: 6	LTVLLLTIIIVYITVIAFNFRKFYIRED--DEVDKKCHDMLTCFVPHLYKGVRAAGGGIGDEIGSPDGGDDYEVYRIIMFDITFFFFFVII
SEQ ID NO: 8	LTVMLLTIIIVYITVIAFNFRKFYVQED--EEVDKKCHDMLTCFVPHLYKGVRAAGGGIGDEIEPPDGGDDYEVYRIIMFDITFFFFFVII
SEQ ID NO: 10	LTVMLLTIIIVYITVIAFNFRKFYIRED--EEVDKKCHDMLTCFVPHLYKGVRAAGGGIGDEIGDPPDGGDDYEVYRIIFDITFFFFFVII
SEQ ID NO: 56	LTVMLLTIIIVYITVIAFNFRKFYIRED--EEVDKKCHDMLTCFVPHLYKGVRAAGGGIGDEIGDPPDGGDDYEVYRIIFDITFFFFFVII
SEQ ID NO: 57	LTVMLLTIIIVYITVIAFNFRKFYVQEDDGEEDRKCHDMLTCFVPHLYKGVRAAGGGIGDEIGDPPDGGDDYEVYRIIFDITFFFFFVII
SEQ ID NO: 58	LTVMLLTIIIVYITVIAFNFRKFYVQEDGEGEEDRKCHDMLTCFVPHLYKGVRAAGGGIGDEIGDPPDGGDDYEVYRIIFDITFFFFFVII
SEQ ID NO: 59	LTMMTCVIIYLYTVLAFNFRKFTYTKDE-GE-IEYKCHNMMSCFVPHLYHSGLRAGGGIADIEAPDGDVYEVYRIIFDITFFFFFVII
SEQ ID NO: 60	LTVGLLAVVVYLYTVVAFNFRKFYNKSED-GDTPDMKCDDMLTCYMFHMYGVRAAGGGIGDEIEDPAGDEYEIYRIIFDITFFFFFVII
SEQ ID NO: 61	LTVGLLAVVVYLYTVVAFNFRKFYNKSED-GDTPDMKCDDMLTCYMFHMYGVRAAGGGIGDEIEDPAGDEYEIYRIIFDITFFFFFVII
SEQ ID NO: 62	LTVGLLAVVVYLYTVVAFNFRKFYNKSED-GDTPDMKCDDMLTCYMFHMYGVRAAGGGIGDEIEDPAGDEYEIYRIIFDITFFFFFVII

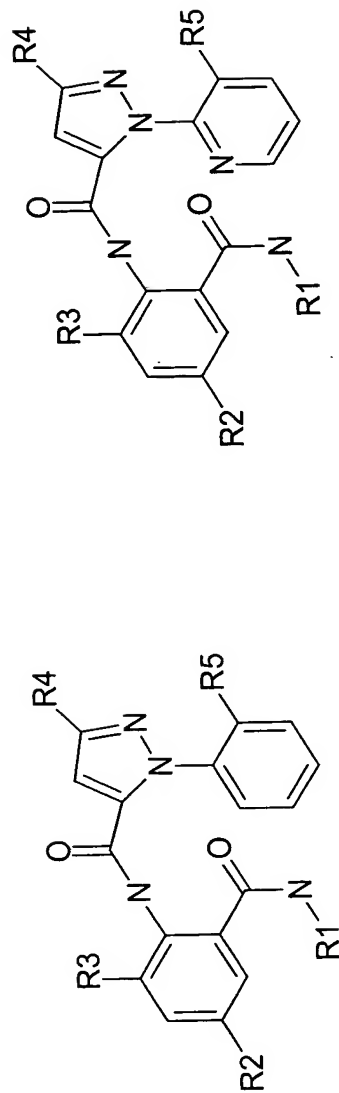
  

SEQ ID NO: 2	LLAILQGLIIDAFAFGLRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFFLMHLINKPDTYTGQETYVWNMYTQR
SEQ ID NO: 128	LLAILQGLIIDAFAFGLRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFFLMHLINKPDTYTGQETYVWNMYTQR
SEQ ID NO: 130	LLAILQGLIIDAFAFGLRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFFLMHLINKPDTYTGQETYVWNMYTQR
SEQ ID NO: 144	LLAILQGLIIDAFAFGLRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFFLMHLINKPDTYTGQETYVWNMYTQR
SEQ ID NO: 146	LLAILQGLIIDAFAFGLRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFFLMHLINKPDTYTGQETYVWNMYTQR
SEQ ID NO: 4	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 6	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 8	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 10	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 56	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 57	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 58	LLAIMQGLIIDAFAFGLRDQESATEKLESSCFICDICKETFDMPRGFEIHTTKEHNFANLYFFLQHLVNKDETEYTGQETYVREKYDNR
SEQ ID NO: 59	LLAI IQGLIIDAFAFGLRDQLESVKEDMESNCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 60	LLAI IQGLIIDAFAFGLRDQESATEKLESSCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 61	LLAI IQGLIIDAFAFGLRDQESATEKLESSCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR
SEQ ID NO: 62	LLAI IQGLIIDAFAFGLRDQESATEKLESSCFICGIGKDYFDKVPHGFDTHVQEEHNLANYMFFLMHLINKPDTYTGQETYVWNMYQQR

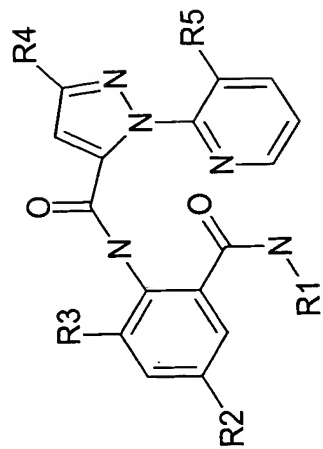
**FIGURE 1FF**

SEQ ID NO:2	CWDFFPVGDGCFRKQYEDLMGE-----			
SEQ ID NO:128	CWDFFPVGDGCFRKQYEDLMGE-----			
SEQ ID NO:130	CWDFFPVGDGCFRKQYEDLMGE-----			
SEQ ID NO:144	CWDFFPVGDGCFRKQYEDLMGE-----			
SEQ ID NO:146	CWDFFPVGDGCFRKQYEDLMGE-----			
SEQ ID NO:4	CWDFFPVGDGCFRKQYEEELGGGGV--			
SEQ ID NO:6	CWDFFPVGDGCFRKQYEEELGGGGV--			
SEQ ID NO:8	CWDFFPVGDGCFRKQYEDELGGGG--			
SEQ ID NO:10	SWDFFPVGDGCFRKQYEDELSGGGGG			
SEQ ID NO:56	SWDFFPVGDGCFRKQYEDELSGGGGG			
SEQ ID NO:57	CWDFFPVGDGCFRKQYEDELGGGGS--			
SEQ ID NO:58	DWDFFPVGEFVKQYEDQLLS-----			
SEQ ID NO:59	CWDFFPVGDGCFRKQYDDEQA-----			
SEQ ID NO:60	CWEFFPAGDCFRKQYEDQLN-----			
SEQ ID NO:61	CWEFFPAGDCFRKQYEDQLN-----			
SEQ ID NO:62	CWEFFPAGDCFRKQYEDQLN-----			
SEQ ID NO:2	= tobacco budworm	(5142 amino acids)		
SEQ ID NO:128	= tobacco budworm HV7	(5128 amino acids)		
SEQ ID NO:130	= tobacco budworm HV2	(5135 amino acids)		
SEQ ID NO:144	= tobacco budworm HV3	(5142 amino acids)		
SEQ ID NO:146	= tobacco budworm HV6	(5100 amino acids)		
SEQ ID NO:4	= green peach aphid	(5101 amino acids)		
SEQ ID NO:6	= cotton melon aphid	(5104 amino acids)		
SEQ ID NO:8	= corn plant hopper	(5127 amino acids)		
SEQ ID NO:10	= fruitfly (DuPont)	(5109 amino acids)		
SEQ ID NO:56	= fruitfly gi17352471	(5113 amino acids)		
SEQ ID NO:57	= mosquito gi21301556	(4868 amino acids)		
SEQ ID NO:58	= nematode gi1871447	(5071 amino acids)		
SEQ ID NO:59	= sea urchin gi18656155	(5317 amino acids)		
SEQ ID NO:60	= mouse gi13569850	(4967 amino acids)		
SEQ ID NO:61	= rabbit gi1245376	(4968 amino acids)		
SEQ ID NO:62	= human gi4506757	(4967 amino acids)		

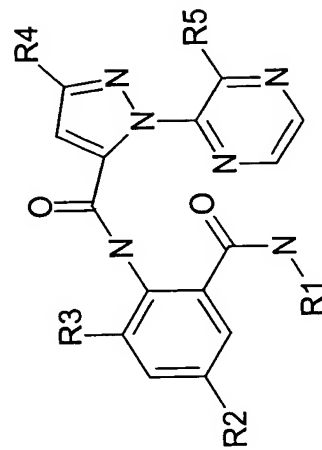
**FIGURE 2**



**Group 1**

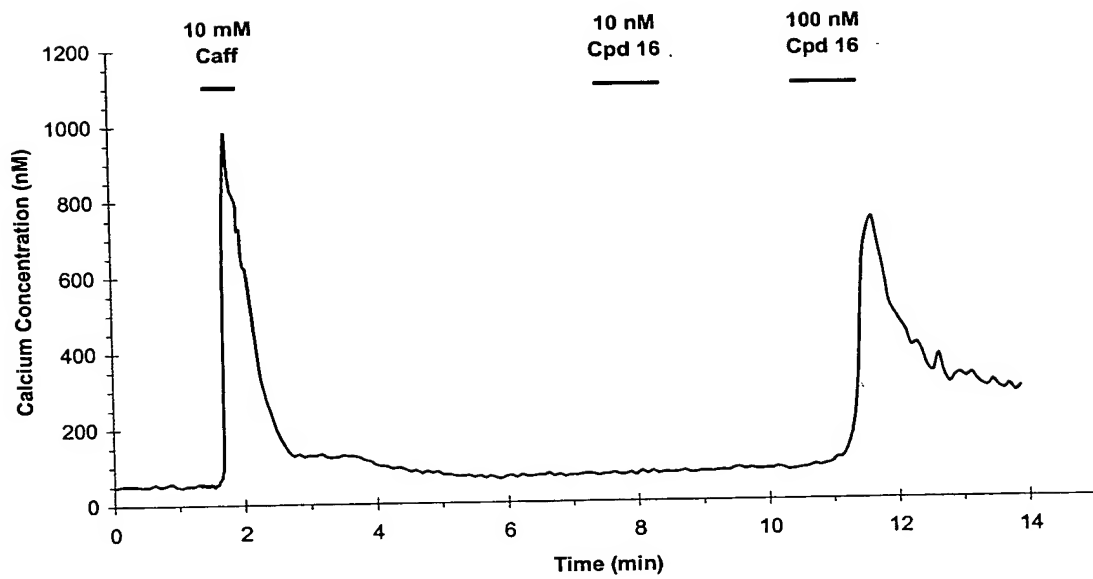


**Group 2**

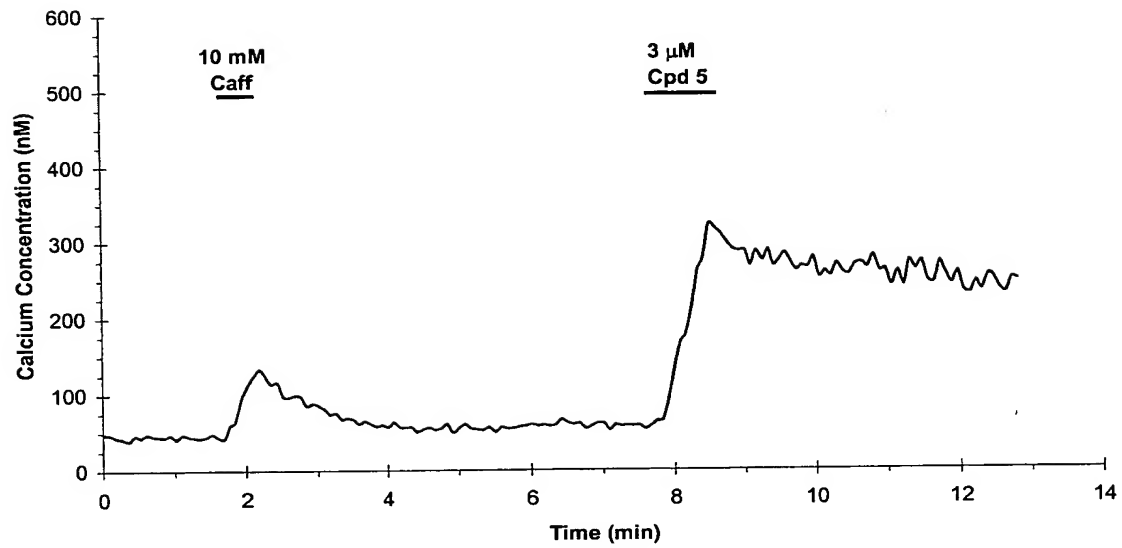


**Group 3**

**Figure 3**



**Figure 4**



**Figure 5**

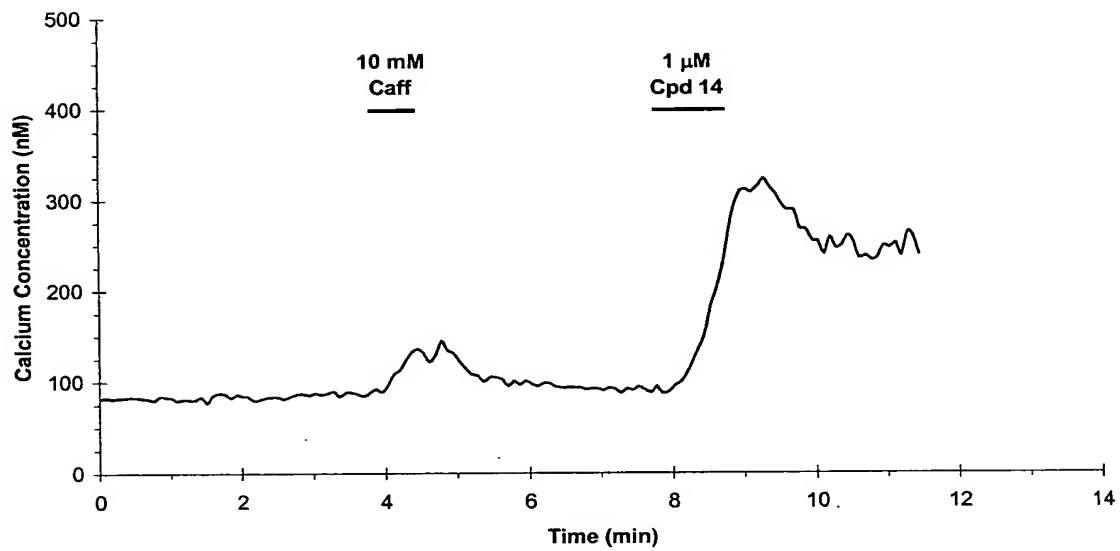




Figure 6

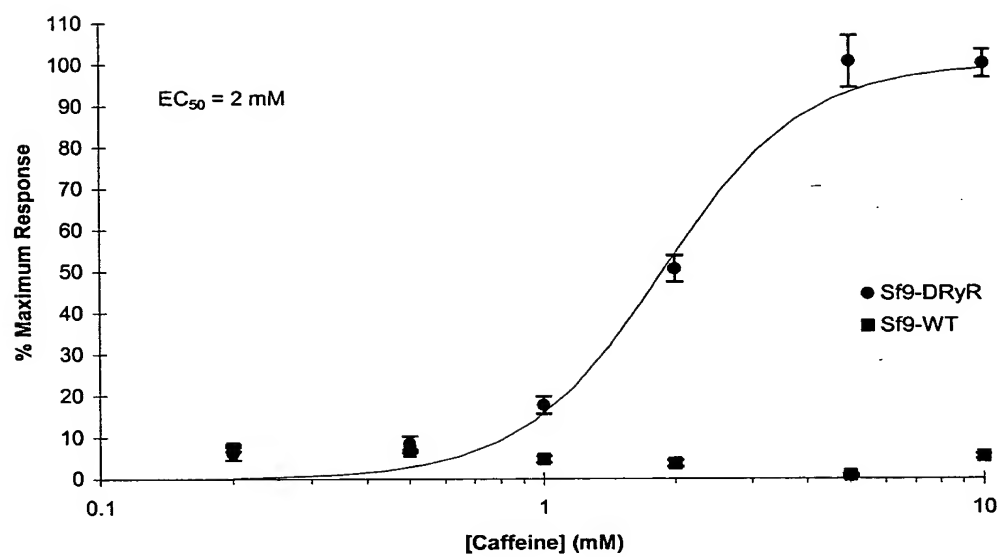


Figure 7

